

NetworkWorld

The leader in network knowledge ■ www.nwfusion.com

June 28, 2004 ■ Volume 21, Number 26

NetworkWorld's
Who Wants to be an Entrepreneur?

In the chips

Victorious entrepreneur looking to shake up network device market.

■ **BY BOB BROWN**

The winner of *Network World's* inaugural "Who Wants to be an Entrepreneur?" contest says if all goes well his idea could lead to routers and other network devices costing much less and coming in smaller sizes.

Contest winner Joe Pereira.

See Contest, page 16

MARTIN KLIMEK

RBOCs bankrolling advanced services

■ **BY JIM DUFFY**

CHICAGO — At the SuperComm 2004 conference last week officials from Verizon, SBC and BellSouth outlined investments they hope will help them unseat the interexchange carriers as primary suppliers of data services.

Among the more significant disclosures were vows by SBC and Sprint to spend \$7 billion or more per year on fiber buildouts.

But the Bells are willing to invest in whatever it takes to get ahead, including new alternative

SUPERCOMM

technologies.

"We're now as likely to talk about Wi-Fi and VoIP as we are about ATM and frame [relay]," said Barry Allen, executive vice president of operations at Qwest, during a keynote address.

Include Ethernet on that list. Qwest has sold "a lot" of Ethernet services to its enterprise customers but also has had to turn some away because it would require an expensive fiber run to

the building, said CTO Balan Nair.

So Qwest is testing IEEE 802.3ah Ethernet over copper equipment to offer Ethernet access services to these fiber-deprived customers. Qwest has found that these Ethernet in the First Mile-compliant products offer 20M to 30M bit/sec services on three-mile G.SHDSL loops when copper pairs are bonded together.

"It expands the suite of access [services]," Nair said.

Qwest also has asymmetrical DSL2+ cards in its laboratories and could roll out the higher-

See SuperComm, page 12

A Wider Net

Earthquakes, fire and lightning: Must be a NEBS test



Taking a switch around back, shotgun in hand.

■ **BY BOB BROWN**

The blue and gray chamber looks harmless enough. Narrow windows embedded in 12-foot-wide, 18-foot-high walls tempt visitors to peer in at bare cement blocks, a bright yellow video camera and a shiny metal apparatus that looks like a flute. Then you step in and take a whiff.

"Pretty strong, huh?" says Clayton Forbes, senior project engineer at National Technical Systems (NTS) in Boxborough, Mass. "That's from the units that didn't make it."

See NEBS, page 14

IM management tools

CLEAR CHOICE



Taking the mess out of instant messaging:

TEST

Managers need to gain control over corporate IM. Page 33

Akonix's L7 Enterprise wins our test of four IM products. Page 36

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Setting up the GPS Navigator can be tricky.
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Feature

IM management tools

CLEAR CHOICE



TEST

Taking the mess out of instant messaging

Like it or not, instant messaging has become a valid form of communication within corporations. The challenge is to control IM to make sure it doesn't hurt your company. *Network World* has you covered, with test results and more options on finding tools that can help out. Starts on **Page 33**.

The benefits and security risks of IM. **Pages 33, 34.**
Plus, L7 Enterprise from Akonix wins our test of four IM products. **Page 36.**

NetworkWorldFusion

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Exclusive

Network World Fusion Radio: Security challenges

This week Merike Kaeo, author of *Designing Network Security, Second Edition*, joins us to discuss some of the security challenges network administrators are facing.

DocFinder: 2635

Drill into convergence

We've set up new research centers with the latest news on converged services, VoIP security, and convergence-related standards and regulatory action. Find the links on the right side of our main Convergence page.

DocFinder: 2636

Buyer's Guide: Network configuration management

Our configuration management Buyer's Guide provides the latest product specs on configuration management products.

DocFinder: 2637

Seminars and events

Weekly Webcast Newsletter

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Columnists

Wireless Wizards

What is the next wireless security surprise? The Wizards answer a reader who asks: "Everyone says the security problem is solved. I don't disagree, but security being what it is, where should we watch for the next surprise?"

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Telework Beat

Exposing the hidden workforce
NetWorker Managing Editor Toni Kistner looks at the Hidden Tech organization, which says independent professionals are changing the residential landscape. **DocFinder: 2640**

Small Business Tech

Mystery printing and the price of pizza
Columnist James Gaskin's back from his swing on the Remote Office Networking Tour and sums up attendees' concerns — security. **DocFinder: 2641**

Home Base

Come fire-walk with me
Columnist Steve Ulfelder outlines ways home-based business-people can motivate their virtual teams. **DocFinder: 2642**

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News Bits

New hacker attack targets IIS

■ Security experts last week blamed a Russian hacker group for an attack designed to infiltrate a wide number of Web sites based on Microsoft's Internet Information Server Version 5. The attack is based on breaking into unpatched Web servers, then uploading a small file with JavaScript "JS.Scob.Trojan" to alter the server's configuration, SANS Institute says. When users visit an infected site, the JavaScript instructs the user's browser to download executable code from a Russian Web site. The code includes keystroke loggers, proxy servers and other back doors. The attack appears to be aimed at capturing the victim's personal data. It exploits a new vulnerability uncovered in Internet Explorer. As of early Friday, there was no patch from Microsoft, which issued a bulletin saying customers who have deployed Windows XP Service Pack 2 RC2 are not at risk. Microsoft also said Web servers running Windows 2000 Server and IIS that have not applied update 835732 "are possibly being compromised." Experts say the group responsible could choose to cause damage in compromised machines by deleting files or launching distributed denial-of-service attacks. The Microsoft bulletin is available at www.nwfusion.com, DocFinder: 2649.

E-mail authentication spec advances

■ Microsoft has submitted a draft technical specification of the e-mail authentication system Sender ID to the IETF for consideration as a standard. Sender ID combines Microsoft's Caller ID for E-mail (which was submitted to the IETF for consideration in May) with Sender Policy Framework, authored by Meng Weng Wong, CTO at Pobox.com, a provider of subscription-based e-mail forwarding and mailing list services. Sender ID maintains lists of IP addresses from which sent e-mail can be traced and if adopted as a standard, could provide a way to close loopholes that let e-mail senders spoof the origin of their message.

Network Associates denies Microsoft talks

■ A published report from CRN last week said Network Associates will be put up for sale and that Microsoft is rumored to be the buyer. The story cited unnamed sources on Wall Street and Network Associates' channel partners. However, Network Associates emphatically denied the story, saying there are no plans to put the company up for sale, nor is it in discussions with Microsoft or any other company on that score. Network Associates is in the process of selling its Sniffer division to Silver Lake Partners and Texas Pacific Group.

COMPENDIUM

Spam rap

Get your Flash client ready and your sound turned up and then go to U Got Spam (www.ugotspam.com) for the best (only?) spam rap video ever.

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The Good The Bad The Ugly



Courtroom drama. While tech company courtroom battles can be a snooze, the Department of Justice's anti-trust trial against Oracle is proving anything but that. Not only has the action provided a view into the drastic discounting taking place in the software market, but it was also disclosed last week in a videotaped deposition by CEO Larry Ellison that next on Oracle's wish list after PeopleSoft are Siebel Systems and BEA Systems.



Computer creator dies.

Mathematician Herman Heine Goldstine, who played a big role in developing the first computer, has died at age 90. Goldstine is said to have helped persuade the U.S. military to back creation of the groundbreaking Electronic Numerical Integrator and Computer (ENIAC) project in the 1940s. ➤



Spammers and slammers.

An AOL employee was arrested last week for allegedly stealing a list of 92 million customer screen names from the service provider and selling it to another person who, in turn, sold it to spammers. He also was arrested, according to news reports. We're sure the IT community could think of some creative punishment for this pair, if proven guilty.

Wireless vendor slaps Cisco with patent suit

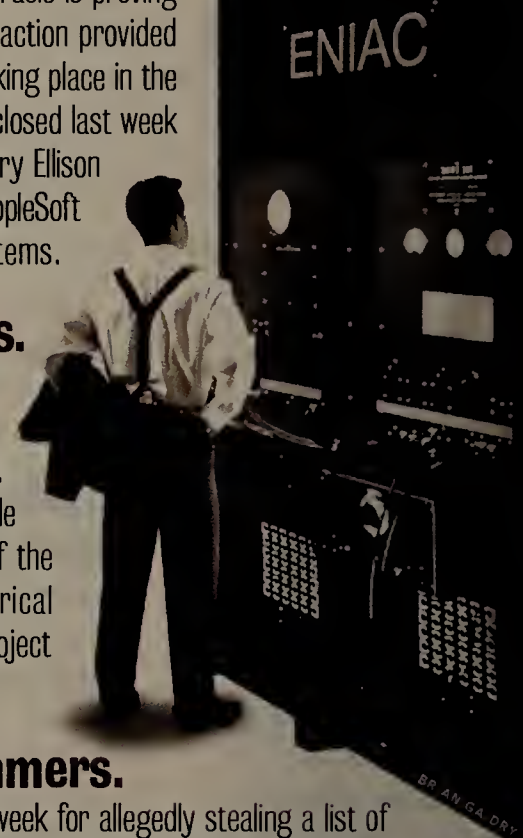
■ A small Canadian broadband wireless vendor has filed a lawsuit in Canada against network behemoth Cisco. Wi-LAN, of Calgary, Alberta, holds several key patents on a radio modulation technique called orthogonal frequency division multiplexing. The vendor says this technology is the basis for 802.11a and 802.11g wireless LAN products and that Cisco needs a license from Wi-LAN to keep selling its Aironet and Linksys equipment. Cisco issued a terse statement: "Wi-LAN claims that its patents are related to industry standards and appears to be applying the patents to the Wi-Fi industry as a whole. We will respond as appropriate after reviewing the claims."

Intel joins AMD with 64-bit extensions

■ Intel this week is expected to take the wraps off its first 32-bit chip with 64-bit extension technology, giving customers an alternative to Advanced Micro Devices' Opteron. Until now, Opteron, unveiled about a year ago, has been the only x86 chip capable of running 32- and 64-bit applications. Analysts say the success of Opteron, which is found in systems from HP, IBM and Sun, helped spur Intel to accelerate release of its own 64-bit extension technology for its Xeon processors. In February, Intel announced that it would 64-bit-enable its Xeon chips by midyear. The company stands to meet that goal Monday when it is expected to roll out Nocona, which will enable dual-processor Xeon systems to run both 32- and 64-bit applications.

Citing ruling, AT&T pulls plug in seven states

■ AT&T last week announced it will no longer compete for traditional local and long-distance voice customers in seven states: Arkansas, Louisiana, Missouri, New Hampshire, Ohio, Tennessee and Washington. The carrier says it will continue to support its current customers in these states. AT&T also says it will continue to offer business services in all of these markets. It will continue to offer its consumer AT&T CallVantage VoIP service, which uses DSL and cable modem Internet access lines. AT&T says the government's decision earlier this month will let RBOCs raise local access line wholesale rates and essentially forced the carrier out of these markets. AT&T says the RBOCs have the ability to raise rates as early as November and it is reviewing its long-term plans to offer residential services in the remaining 39 markets where it does so today. MCI and Sprint, which also face the same risk of rate hikes as AT&T, have not said they are pulling out of any of the markets where either offers consumer services.



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Enterasys delivers switch-based security

■ BY PHIL HOCHMUTH

Enterasys Networks this week is scheduled to announce capabilities on its LAN edge switches that will let administrators effectively cut off virus-infected or virus-vulnerable machines trying to access corporate resources.

The vendor's Trusted End-System Solution (TES) technology combines Enterasys hardware with client- and server-based end-point assessment software from Zone Labs and Sygate to let each switched Ethernet port act as a security gateway into an enterprise network.

TES works with Zone Labs' Integrity products and Sygate's Secure Enterprise software suite, in conjunction with Enterasys Matrix C-, E- and N-series and

wiring closet switches. This system also is tied closely to Enterasys' Netsight Atlas Policy Manager, which is a server-based network policy management suite used to set up network profiles and policies for end users and to define what resources they can access.

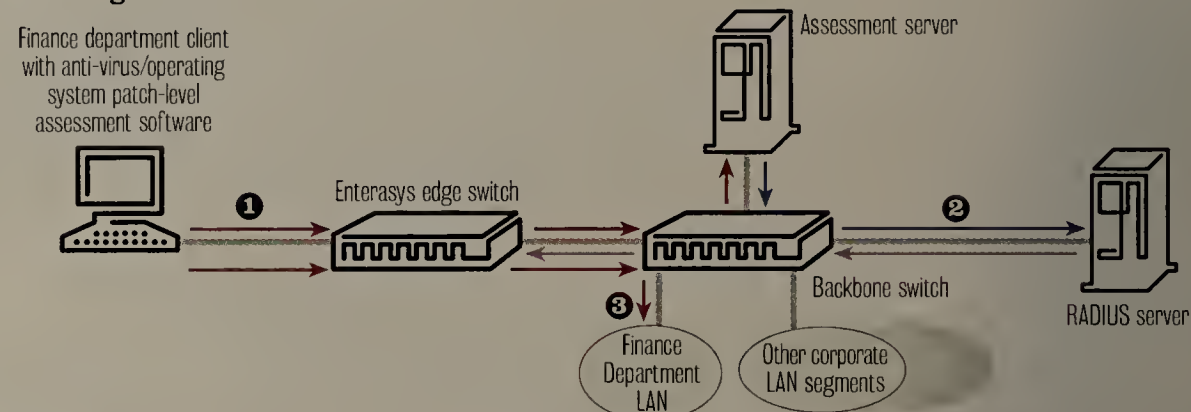
Enterasys earlier this year announced the ability for its Policy Manager to enforce access rules on switches, based on alerts from the vendor's Dragon intrusion-detection system (IDS) products.

TES comes on the heels of Cisco's announcement of router-based support for its Network Admission Control (NAC) technology, which uses client anti-virus software partner products to help enforce remote network

See Enterasys, page 12

Port-level security

Enterasys can work with client assessment software from Zone Labs and Sygate to inspect end-user machines for potential threats before assigning network policies and allowing access.



1 A client machine connects to an Enterasys switch via the 802.1x protocol, and can only access a third-party assessment server. The assessment server inspects the machine's anti-virus operating system patch-level data (provided via client-based software.)

2 If accepted, a message is sent to a RADIUS server. This server authenticates the client against a user name/password database. If approved, the RADIUS server tells the Enterasys switch to open the port.

3 The Enterasys switch opens the port and allows the user access to network resources.

Moribund Comdex show takes a vacation

■ BY ANN BEDNARZ AND JOHN COX

While the cancellation of this year's Comdex show is supposed to provide a one-year hiatus so the event's organizers can regroup, many industry observers predict the suspension might become permanent.

"Phoenixes never rise," says Frank Dzubeck, president of Communications Network Architects and a member of the Comdex advisory board for 20 years beginning in 1981. He's skeptical that MediaLive International, which produces Comdex, will be able to regain any momentum after a one-year absence.

Comdex could be dead, agrees Andrew Olson, managing director for consulting firm Group International. "[New owner] MediaLive's marketing never understood the marketplace. I don't think it's going to come back."

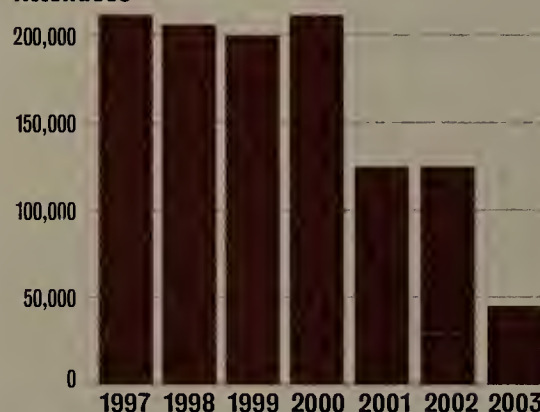
Last week, MediaLive said it was canceling this year's Comdex trade show because of a lack of support from the industry's biggest IT vendors. In particular, vendors such as IBM, Sun and Dell have been missing from the show floor in recent years.

One reason Comdex — a fixture in the IT world for 25 years — has lost a lot of its luster is the perception that it was no longer pulling in enterprise IT buyers. Faced with increasing competition from the

You've been canceled

Comdex reached its peak in the late 1990s before contracting to a fraction of its maximum size.

Attendees



1997-2002 SOURCE: TRADESHOW WEEK
2003 SOURCE: BPA AUDIT

Consumer Electronics Show held every January in Las Vegas, Comdex tried to embrace the consumer electronics market. Because of that, the show headed off on the wrong course, says Rob Enderle, principal analyst for The Enderle Group. "It became too much of a toy show."

The trade shows that are prospering today target one industry, such as Supercomm with its telecom bent, observers say.

A similar IT show stalwart, ComNet suffers from the same lack of focus, he says. In fact, IDG World Expo, a *Network World* corporate cousin, is evaluating the

status of the ComNet event in Washington, D.C., for 2005. So far the show is not on the company's calendar for next year. Organizers are working to revamp ComNet into something more relevant to today's technology buyers and sellers, says Doug Gold, vice president of business development at IDG World Expo.

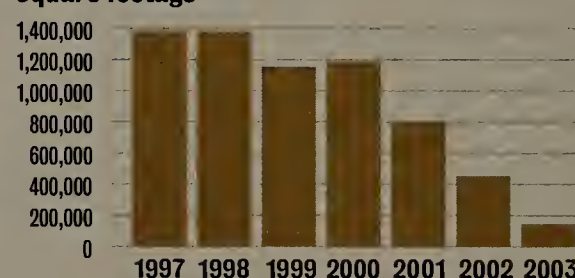
Another trend that hurt Comdex is the change in buying practices, says Sam Whitmore, editor of "Sam Whitmore's Media Survey," which analyzes the technology media business.

These days vendors are funneling money slated for lead genera-

Exhibitors



Square footage



tion to other outlets besides trade shows, he says. Vendors use e-mail campaigns, newsletters, downloadable white papers and a plethora of Web-based applications to find sales prospects.

"The original concept behind a trade show is that big vendors would come in and have closed-door meetings to line up distribution deals and volume sales," Whitmore says. But buying over the Internet has changed all that. Sites such as Bitpipe.com make product literature available online, he says. "Why does anyone positively absolutely have to trek to Vegas to learn about product

details? You don't."

Meanwhile, MediaLive says Comdex will be back in Las Vegas next year, after a new advisory board spends a year trying to figure out what's best for the show.

"We need to build back trust with the vendors, with companies like IBM, Intel and Dell that hadn't been in the show since 1997," says Eric Faurot, vice president and general manager of Comdex at MediaLive. (Dell did have a display at last year's event.)

The vendor-centric advisory board established to recast Comdex includes representatives from Microsoft, Oracle, EMC and Advanced Micro Devices. While other enterprise heavyweights have strayed, Microsoft has been a constant at the show since Bill Gates delivered his first keynote in 1983.

Faurot says MediaLive worked closely with Microsoft throughout the process of deciding Comdex's 2004 fate. "We agree that it doesn't make sense to have an event without a critical mass and broader support of industry leaders," Faurot says.

He's optimistic Comdex will return next year. "We've got some of the smartest people in the industry from these companies talking about how to make this event valuable."

IDG News Service correspondent Agam Shah contributed to this story.

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Anti-phishing efforts need teeth

■ BY CARA GARRETSON

As phishing quickly becomes the next big headache for consumers and businesses wanting to communicate with them via e-mail, a number of industry groups have emerged to combat the problem. However, until technology is implemented to authenticate e-mail sources, observers say little can be done to fight this form of electronic fraud.

In addition to the Trusted Electronic Communications Forum (TECF), which IBM, Best Buy and others formed two weeks ago, MasterCard last week announced a partnership with online brand-protection service NameProtect to detect and combat phishing attacks as they are happening. These initiatives join the Anti-Phishing Working Group, established last year by a number of industry players.

Go phish

May statistics highlight the scope of phishing attacks.

Number of unique phishing attacks	1,197
Peak number of unique phishing attacks per week	321
Organization most targeted by attacks	Citibank
Industry most targeted by attacks	Financial services
Percentage of attacks that use e-mail spoofing	95%

SOURCE: ANTI-PHISHING WORKING GROUP

Phishing scams, in which criminals send e-mail under the guise of a well-known company and point unsuspecting recipients to a Web site where they're fooled into divulging financial information, are at an all-time high. The Anti-Phishing Working Group says nearly 1,200 unique phishing attacks were reported in May.

While viewed largely as a consumer issue, companies that rely

on electronic communications also will feel the effects of phishing if fewer and fewer customers open their e-mail.

"The biggest issue [for corporations] is it damages the credibility of e-mail communications, so they can't count on this channel with customers," says Avivah Litan, vice president and research director with Gartner. "In this sense it's damaging to their brand."

TECF — with members from the technology industry, including CipherTrust and PostX, and companies in the financial and retail arenas — was formed to promote the adoption of standards that could curtail phishing. Among the options are a number of sender-authentication proposals that are currently circulating, such as Microsoft's Caller ID specification and a competing proposal from Yahoo called Domain Keys. Both of these are designed to authenticate the identity of an e-mail sender so that phishers can't spoof an e-mail address.

Shawn Eldridge, TECF's chairman and director of products and marketing at PostX, won't say which technology standards the group will promote. Nor will he offer a time frame for when technology will be decided on.

That means implementation of the group's chosen standards is unlikely to happen in the short term.

"The obvious solution [to phishing] is some kind of caller ID for the Internet, which means you've got to update all the domain name directories and browsers and e-mail clients, and that's years and years away," Litan says.

Meanwhile, TECF will try to educate consumers, lawmakers and the industry about phishing, and it will build the ranks of its membership, albeit on a selective basis to maintain the group's focus.

The Anti-Phishing Working Group already offers similar services. The group hosts a Web site (www.antiphishing.org) to alert the public to phishing scams and offers other educational information, so to some the TECF seems like more of the same.

"It seems like there might be some duplication of goals and efforts," Dave Jevans, chairman of the Anti-Phishing Working Group, said when the TECF was announced.

To others who have been the victim of phishing scams, the more the merrier.

"Any group that comes together to try to fight phishing and spoofing online and tries to improve the online experience is a good thing," says Amanda Pires, spokeswoman with eBay's PayPal division, whose customers have witnessed countless phishing attacks. "We are certainly supportive of efforts on every part of the industry that tries to stop this insidious behavior." ■

VeriSign announces security, anti-phishing services

■ BY ELLEN MESSMER

VeriSign this week plans to announce two sets of services to combat spam as well as fraud caused when criminals set up phony Web sites that mimic legitimate ones to gain victims' personal data.

The company on July 12 expects to begin offering an anti-spam and anti-virus filtering service, like those offered by competitors such as Postini, says Chad Kinzelberg, vice president of Secure Sockets Layer and VeriSign Security Services.

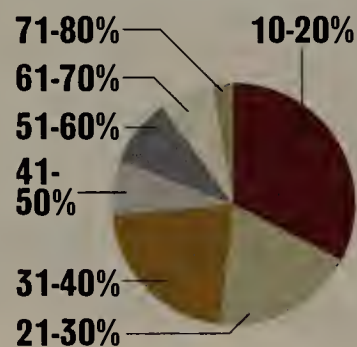
Customers of the VeriSign E-Mail Security Service redirect corporate e-mail to mail servers hosted in VeriSign data centers, including those in Mount View, Calif., and Dulles, Va., to have their e-mail scanned. No software is required.

The anti-spam/anti-virus filtering will cost from \$1 to \$3 per user, per month. The service will be based on licensed anti-virus engines from Symantec, Trend Micro and Sophos, and the FrontBridge anti-spam engine.

Kinzelberg says VeriSign will try to duplicate the load-balancing measures it takes in maintaining domain-name servers.

In the flow

110 IT managers were asked what percentage of their company's e-mail is spam.



SOURCE: INSIGHTEXPRESS

VeriSign also is branching out to provide anti-phishing consulting, monitoring and response for corporations combating the proliferation of fake Web sites that look like real sites. Phishing sites trick victims into entering personal information, usually after they receive an e-mail instructing them to go to the fraudulent Web site.

Under the service — based on customer-specific pricing but expected to run into the thousands of dollars per month — VeriSign will closely watch for registration of Web site domain

names that could be phishing sites. VeriSign immediately will notify corporate customers of scams and ISPs hosting the fake Web sites.

"We'll work with the customer, law enforcement and the ISP to shut it down," Kinzelberg says, adding that VeriSign doesn't have the legal power to simply yank use of the domain name.

According to eBay Chief Security Officer Howard Schmidt, the phishing problem probably can be remedied through changes in the Web browser that Microsoft plans to make by year-end. This is expected to make it easier for the user to understand site validation performed through the digital-certificate checking process.

VeriSign says there still is room for its anti-phishing service even if this best-case scenario occurs and the Microsoft fix that Schmidt is alluding to works.

"I hope he's correct," says Kinzelberg, noting that VeriSign, a digital certificate provider, also is involved with Microsoft on this effort. But even if the software change works, there probably are 450 million browsers in use today, and not all of them will get this upgrade, he says. ■

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speed access service by year-end as an upgrade or enhancement to its very high-speed DSL (VDSL) service, Nair said. ADSL2+ is said to support speeds of 25M bit/sec on 5,000-foot spans, while VDSL supports 50M bit/sec at up to 1,000 feet.

Qwest has 50,000 VDSL subscribers that receive voice, video and data "triple play" services over those lines.

On the VoIP front, Qwest last week announced a net-based business VoIP service called OneFlex. OneFlex is the VoIP offering to Qwest's iQ Networking VPN service for corporations, which uses the carrier's nationwide Multi-protocol Label Switching network.

The Qwest network carries 1 billion voice minutes per month and is designed for maximum latencies of 100 millisecond.

VPNs also are high on BellSouth's list of priorities. The RBOC is working on a Layer 2 "multi-protocol" VPN service that provides "intelligent" transport of IP and non-IP protocols — such as SNA and IPX — for intranets, said Mark Kaish, BellSouth vice president of next-generation services.

Also on BellSouth's docket is

“We are now as likely to talk about Wi-Fi and VoIP as we are about ATM and frame [relay].”

Barry Allen

Executive vice president, Qwest

broader wireline/wireless integration, specifically wireless access to the carrier's network VPN service; VoIP over Wi-Fi and cellular; and the ability for business users to access all of their desktop functions from a handheld device.

Like Qwest, BellSouth also views access as a hot-ticket item. The carrier will begin ADSL2+ equipment deployments in the second half of the year, and is working on a "mid-band" access service to support speeds between T-1 and 10M bit/sec Ethernet over copper, Kaish said.

Ethernet also is on SBC's front burner. The carrier is working on a 10G bit/sec point-to-point metropolitan Ethernet service called DecaMAN that it hopes to make commercially available at the end of this year or early next, says CTO Chris Rice. DecaMAN is in use by three unidentified SBC customers and is intended for storage and data center connectivity applica-

tions, Rice said.

SBC is investing heavily in a fiber buildout, specifically \$6 billion over three or four years on Fiber to the Neighborhood, also known as Fiber to the Node (FTTN). Fiber will come to within 5,000 feet of customer premises, and then access to that fiber will be provided over VDSL and ADSL2+ connections at 15M to 25M bit/sec.

"As I roll out FTTN, the customer is still served by DSL," Rice said.

ADSL2+ connections could achieve 50M bit/sec with a bonded copper pair, he says.

On VoIP, SBC plans to roll out its network-based PremierSERV Hosted IP Communication Service to 20 additional cities by year-end. It's available in 50 now.

VoIP is also on Verizon's radar. The RBOC is on schedule to unveil a network-based QoS service for enterprise customers in the fourth quarter, but last week

also disclosed plans to roll out a Centrex IP service in early 2005.

Verizon's investment in value-added services such as VoIP will "grow considerably over the next couple of years," said CTO Mark Wegleitner.

Investment in access technologies has been "very heavy" over the past few years, Wegleitner says. Like SBC, Verizon is investing \$1 billion annually to take fiber directly to the customer premises — 3 million premises by the end of 2005.

Fiber to the Premises (FTTP) provides greater "headroom" for Verizon in terms of adding new services and reducing operational costs, Wegleitner says.

"We can provide the most competitive [alternative] to cable TV triple play," he said, comparing

FTTP fiber drops with the VDSL and ADSL2+ copper drops SBC plans. "And a major component is to reduce costs. A manual provisioning process becomes a back-office operation."

Verizon is evaluating ADSL2+ as a "natural extension" to its DSL service. ■



More online!

Read more about what happened at SuperComm.

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Spending buoys telecom show

■ BY TIM GREENE

CHICAGO — SuperComm 2004 last week was all about new services — how to create them, provision them and deliver them to customers.

At this year's edition in Chicago, attendance had grown — the unofficial tally neared 30,000, up about one-fifth — over last year, and people seemed to be going about business with a clear focus. "It's not a show anymore," said one vendor. "It's all work. There's no magicians, no jugglers."

The most stunning announcement this year, a \$6 billion commitment by SBC to build fiber networks into residential neighborhoods, snapped heads around for its sheer size and boldness. The company seized on a court ruling that protects carriers that own networks from having to lease new network technology to competitors at cut rates. That ruling, says SBC Chairman Ed Whitacre, paves the way for new services. "Everybody recognizes the rules have held back what we need to do," he said.

FCC Chairman Michael Powell, a keynote speaker, vowed to help by curbing further regulations that chaw up carriers' time and expense. "They can redirect that money to switches and fiber," he said, noting that hands-off is the best way to promote innovation, particularly in broadband wireless services. (See related story, page 23).

Also, Sprint announced a \$1 billion promise to overhaul its wireless network so it supports a five-fold in-

SUPERCOMM

crease in data speeds. Sprint says embracing Evolution Data Optimized technology will result in new high-speed services in 2006.

Again and again, VoIP service technology got a lift. Verizon announced it is installing softswitches for the first time to carry local, not just long-distance, IP voice traffic. While limited to California and Washington state, the deployment could herald a new wave of voice-data services.

VoIP sells, said Don Logan, chairman of Time Warner's Media & Communications Group, during his SuperComm keynote address. A Time Warner trial of the technology in Portland, Maine, has snatched one in 10 subscribers from traditional voice providers with most of them buying VoIP bundled with TV programming and Internet access, he said.

VoIP played a major role in a demonstration that DSL can compete against cable for services such as voice, video, gaming, home entertainment and Internet access. The DSL Forum's demo highlighted easily configured home networks that support these.

Sylantro Systems demonstrated how VoIP can anchor mixed-media services by blending separate voice and text capabilities. For the show, the software maker created a service that lets Yahoo customers checking on their instant-messaging activity click on a buddy's name to call them on the phone. A service provider with the right infrastructure could use the software to sell Yahoo IM customers an add-on service, Sylantro says. ■

Enterasys

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access on Cisco routers. Cisco also said it would support switch-based port blocking via NAC in 2005. Alcatel also has a switch technology in the works for quarantining worm-infected machines into a secure virtual LAN (VLAN). Nortel's BayStack switches also can utilize IDS and anti-virus technology from third-party vendors to block unsafe clients.

This trend in network switch technology is based on increasing user demand for tools to lock down LANs.

"We need a way to push security policies out to [LAN] edge switches and do it in a way that doesn't require as much manager intervention," says Mike Hawkins, associate director of networking at the University of North Carolina, Chapel Hill.

Alcatel OmniStack, Cisco Catalyst and Enterasys Matrix switches are deployed in real-world environments through the flagship UNC campus, which supports 50,000 users, and has 75,000 Ethernet LAN ports and 400 wireless LAN access points, Hawkins says.

"We have a particularly nasty network, he says, "in the sense that we have users coming online with a lot of bad stuff." This includes unpatched Windows machines and virus-infected PCs. "Not one solution will hit all the things we need to hit."

UNC is looking to augment its current IDS, anti-virus and security appliance infrastructure with an intelligent LAN edge switch that can provide port-level security to connected users. Hawkins says that so far, Enterasys is ahead of the game.

Enterasys' TES technology uses client software from Sygate or Zone Labs to audit every corporate PC or laptop attaching to the company. When logging on, an assessment server from either of the two vendors provides a first line of defense, even before clients obtain Layer 2 network access or an IP address from a Dynamic Host Configuration Protocol server.

This approach is similar to what Alcatel, Cisco and Nortel have announced as future plans. Regarding Cisco's NAC push, "this is not a me-too announcement from Enterasys," says Abner Germanow, a research director at IDC.

Cisco and Alcatel have outlined plans to secure networks by quarantining potentially dangerous users with VLAN technology on their respective LAN switches. Enterasys ties network enforcement to its Policy Manager product, which can provide a finer level of network access authentication and privileges, according to the company.

Instead of denying all access to dangerous users or shunting them into a quarantine VLAN bucket with limited network access, TES can assign a pre-defined network identity to potentially unsafe clients, according to John Roesse, CTO at Enterasys. He says this method is easier to deploy and manage because it does not require setting up special VLANs on a network. Also, assigning user-based policies allows for a tighter level of control than the admit/deny/quarantine approach competitive switch makers are adopting, he says. ■

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NEBS

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The flames and smoke got 'em."

The NTS fire test chamber, where a charred metallic and gassy odor lingers, is one in a battery of stations used to determine whether telecom gear is safe and sturdy enough to be used in the central offices of RBOCs and other big U.S. carriers, and, in some cases, military networks. The flute-like instrument in the chamber is actually a methane gas torch that gets stuffed into the guts of telecom boxes to find out if they can contain a blaze. The yellow camera takes thermal images, especially

useful when cabinet doors and black smoke make viewing the burning innards otherwise impossible.

Welcome to the largely behind-the-scenes world of NEBS testing. While the acronym NEBS, short for Network Equipment Building System, is familiar to many in the industry, far fewer know what it takes for a switch, server or other box to gain NEBS compliance. Carriers require equipment makers that hope to win their business to first run their devices through a gauntlet of about 30 NEBS tests — not government mandates — defined in documents GR-63 for environmental requirements and GR-1089 for

electrical requirements.

The NEBS concept got its start in the 1970s at Bell Labs, and the documents now are maintained by Telcordia, which also conducts NEBS testing. While the NEBS criteria is designed for carrier equipment makers, testers say some enterprise network equipment gets NEBS certified in cases where vendors sell gear to carrier and corporate markets.

At NTS, telecom gear needs to survive the flame test and an earthquake simulator that tops 7 on the Richter scale, plus make it through chambers that determine whether equipment can handle extreme hot and cold temperatures as well as lightning strikes and high altitudes. Sometimes testers, armed with shotguns, even take boxes out back and try to shoot through their cabinets with No. 6 steel shot from 50 feet away.

Vendors pay tens of thousands to hundreds of thousands of dollars per year to have their products tested.

Jim Press, a colleague of Forbes' who runs the electromagnetic compatibility lab at NTS, says he remembers hotshot entrepreneurs a couple of years back coming in to test all sorts of new devices that could push information down pipes faster.

"They'd tell me, 'We're going to ship this month,'" he says. "I'd tell them, 'You've got months of testing and design work ahead of you,' and they'd be shocked."

The overall NEBS testing process usually takes at least a couple of months and is extremely challenging, as manufacturers seek to strike a delicate balance between sealing in emissions, blocking out contaminants and allowing enough airflow to keep systems cool in rooms that typically don't have sprinkler systems.

"Fire testing is pretty nerve-racking," acknowledges Paul Elias, CTO with Covaro Networks, a start-up that recently got its CC-16000 Ethernet services box NEBS 3 certified, the most stringent level defined.

While the flame and earthquake tests are crowd pleasers, the more subtle electromagnetic interference and discharge tests are among the toughest to pass, says Elias, who has spent his career at small and large telecom companies. "In 20 years of doing this I've never seen a first-pass success," he says.

Regardless of how well an engineering team has built its product, Elias says NEBS testing



A tester at an NTS lab prepares a fire spread test to assure that this central office system will not contribute to widespread fire damage.

Brightmail upgrades anti-spam software

■ BY CARA GARRETSON

As anti-spam software maker Brightmail officially becomes part of Symantec, the company is releasing an upgrade to the enterprise version of Brightmail Antispam.

Version 6.0 has an enhanced reputation service and non-English filtering capabilities, and blocks a new spam technique called signature attachments, says Carlin Wiegner, director of product management.

In Version 6.0, the company has added features governing suspect IP addresses and safe IP addresses to the Brightmail Reputation Service, which monitors hundreds of thousands of e-mail sources to determine how much mail sent from these addresses is spam. Suspect IP addresses are those that send a lot of e-mail, but aren't necessarily considered spam sources. E-mail received from suspect IP addresses are flagged as such and sent through the software's filters. "It's not black or white, we use [the suspect IP list] as one piece of evidence," Wiegner says. E-mail from sources on the safe IP list will skip Brightmail's filters and go directly to users' in-boxes, unless the administrator specifies otherwise.

Although far from perfect, reputation lists are becoming a useful tool in the fight against spam, says Jonathan Penn, an analyst at Forrester Research. "As you get sender ID information ... you're able to develop a history of their identity," he says. However, problems arise when spammers begin to hijack legitimate e-mail addresses.

Version 6.0 scans messages written in a more than a dozen languages, searching the content for telltale spam keywords.

The upgrade can detect attachment signatures, which are images embedded into an e-mail that point the reader to a URL. Instead of embedding the URL into the e-mail, which Brightmail's filters already can catch, spammers have begun putting text into an image with instructions for going to a Web site.

Brightmail Antispam 6.0 will be available June 30. It costs about \$1,500 per year for 49 users; additional users cost \$14 per user, per year.

Symantec's \$370 million acquisition of Brightmail was completed officially last week. The company competes with enterprise anti-spam software makers including Cloudmark and Proofpoint. ■



More online!

Listen to highlights from Mark Gibbs' keynote presentation on strategies for creating a messaging environment that ensures network integrity and user productivity, and returns power and control to enterprise network managers.

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remains a high-anxiety event given that any setback could cost a start-up two or three months in its design cycle and chew up 10% of a round of venture funding.

Outfits such as NTS aren't out to ruin anyone's day, even though they run torture chambers for equipment. In fact, testing companies work with clients to suggest how products can be redesigned or tweaked to pass the tests. One box that underwent testing at NTS several weeks ago was patched with aluminum foil and masking tape to show the equipment maker where the box needed to be tightened up.

Labs use videotapes of boxes going up in smoke or dancing wildly on the earthquake simulator for educational purposes and to wow lab visitors.

"What we say here is: 'Where else can you purposely break hundreds [or thousands] of dollars worth of equipment and get paid for it?'" Forbes says.

"What usually happens is they do things themselves the first time around, then come back and get us involved from the start the next time," says Press, who has spent six years at NTS and is a 19-year veteran of the electromagnetic compatibility field. "If you want to get into the NEBS world, there's a lot of homework to do."

While NEBS testing might seem like overkill, those involved in it insist otherwise. Verizon spends more than \$1 million per year to evaluate between 2,000 and 3,000 products for use in its 9,800 central offices and other facilities, says Chuck Graff, director of NEBS compliance and quality assurance at the carrier.

The company reviews NEBS reports provided by vendors and has discovered 320 errors in test reports over the past three years, which if unfound could have resulted in network

outages, he says. Verizon requires that its vendors meet a level of five-nines reliability in order for the carrier to adhere to state public utility commission service levels.

Many consider Verizon to be the toughest carrier to satisfy — service providers that request NEBS certification often have special requirements beyond the base standards, though they are trying to lessen such differences to make life easier for equipment makers. And the events of Sept. 11, 2001, only strengthened the carrier's adherence to the standards. As was well documented in the wake of the terrorist attacks, Verizon's 140 West St. switching office next to the World Trade Center remained in operation — thanks in part to diesel generators that took over when the DC power was lost — despite the network equipment there being covered with bricks, mortar and in some cases more than an inch of dust.

Graff says that every time it looks as though equipment vendors have gotten NEBS requirements down, change happens. For instance, with Verizon committing to a huge fiberto-the-premises rollout, the carrier is increasingly dealing with video equipment makers, most of which aren't up to speed on NEBS.

While NEBS testing will continue to challenge vendors, they might take comfort in the fact that Telcordia is mainly just fine-tuning the NEBS requirements, not planning any major new ones, says Rich Kluge, the company's director of NEBS technical services.

"There's no volcano test on the way," he says. ■



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Microsoft readies cluster software

■ BY JENNIFER MEARS

Microsoft is readying a version of its Windows Server operating system that will let users link dozens of standards-based systems to get the processing power available today in big symmetric multiprocessing boxes.

Last week, Microsoft confirmed that it is developing Windows Server 2003, HPC Edition, geared for customers in industries such as engineering, life sciences and finance, where scalable, parallel computing is becoming more mainstream. The software, expected to ship in the second half of next year, is a departure from Mi-

crosoft's current approach to clustering, which is limited to shifting entire workloads between systems, says Dennis Oldroyd, director of Windows Server at Microsoft.

"The clustering services that are included in Windows Server Enterprise and Data Center editions do things like failover management and load balancing," he says. "In a high-performance computing, parallel environment you split the problem out and divide it over nodes that are on the cluster, using technology called [Message Passing Interface] to send messages between the nodes."

That means all the nodes in the cluster can act as a single pool of

resources to provide high-performance processing power, he says. The market is growing rapidly and today Linux is the dominant operating system for most high-performance computing (HPC) clusters, analysts say.

Product revenue in the HPC clustering market was \$2.4 billion in 2003 and is expected to jump to \$5.1 billion by 2008, according to IDC. "It's a real market, and by and large it has been driven by Linux," says Chris Willard, research vice president of HPC systems at IDC.

As HPC clusters become more mainstream and make their way into commercial enterprise data centers, it's not surprising to see

Microsoft start planning a packaged offering, Willard says. Today, customers can deploy HPC clusters on Windows but must use third-party tools and configure the clusters themselves. With Win 2003, HPC Edition, Microsoft aims to simplify the process of deploying Windows-based clusters.

"This market is starting to transition out of that historical academic and research focus into the commercial enterprise," Oldroyd says. "What we've seen from our customers is that they're starting to look at this technology, and they'd like to have it available on Windows."

Last month, Linux clustering

software specialist PolyServe rolled out a product for deploying clusters running Windows 2000 and Win 2003 using a clustered file system to let all servers tied to a storage-area network share data. Oldroyd wouldn't say whether Win 2003, HPC Edition, would include a clustered file system.

Advanced Micro Devices, Dell, HP, IBM, Intel and Verari Systems have said they will support Win 2003, HPC Edition. Cornell Theory Center (CTC), which has run a Windows-based HPC cluster for years, also is supporting the effort.

Pricing for Win 2003, HPC Edition, has not been released. ■

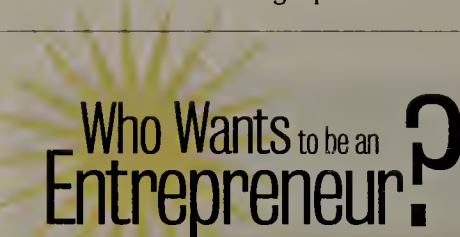
Contest

continued from page 1

Joe Pereira, a former design manager for pre-IPO semiconductor company NetLogic Microsystems, beat out 60 entrants with his concept for a content and database engine designed to take up two to 10 times less space and handle more chores than current specialty processors. His prize: \$30,000 split between cash and services paid-in-kind, such as legal advice, plus exposure to a panel of judges including three venture capitalists.

"This is great news," he said, when notified. "I hope this can be the start of a great company."

The contest launched April 19 and gave would-be entrepreneurs about a month to submit entries. It elicited a range of ideas from those running corporate networks, working for consulting firms and toiling within the vendor community. Among the finalists were pitches for a biometric ID system, automated password management, a service to help small-office and home-office users secure their networks and computers, plus a system for cutting down on spam by spotting and stopping it closer to the point of origin.



The final five

Joe Pereira emerged from a group of five finalists and 60-plus entrants overall to win our "Who Wants to be an Entrepreneur?" contest.

Entrant	Winner Joe Pereira, architect	Andy Warner, MBA student, Georgia Institute of Technology	Mike Dean, program manager for technology, Plumsted Township Board of Education in New Jersey	Robert Bagnall, CEO, Muse Innovations	Gregg Branham, CEO, Altus Network Solutions
Concept	Content and database processor to be used in enterprise network gear.	AbuseButler, an application service provider built to cut off spam closer to its origin.	A service that could let businesses work together to identify each other's employees using biometrics.	WebRhino, a security portal service for home users and small and midsize businesses.	PassfiltPro, software designed to make password-based security more effective.

Several entrants proposed ways to clean up log files from Cisco routers and other devices. One entrant even proposed a new type of energy that had judges joking about cold fusion.

As for Pereira, he says he had never entered a business competition before but decided to use the process as a way to help validate his idea.

The 36-year-old technologist, who enjoys soccer and reading philosophy, says he has been awarded 17 patents over the years and has 20 patent applications pending. His content and database engine idea stemmed from efforts to accelerate pro-

cessing of various multi-dimensional databases, including those used in bioinformatics and security.

Pereira, who moved from India to the U.S. in 1999 and now lives in California, says the technology he has under development would be sold as a subsystem, card or chip. The processor he has in mind "stores databases including routing tables and security rules (spam, intrusion-detection system, virus), and applies them at high wire rates," he wrote in his application. Pereira describes his vision as "improving performance and reducing cost for router, security,

cache and database systems."

He says that his content and database engine, by supporting a range of processing duties, would be a cost-effective alternative to silicon designed specifically for each niche, such as processing XML data.

He estimates it would take about two months to define a processor for any particular customer and eight months to build it. He says he plans to build "a mathematically complete solution rather than [another one of] today's heuristics-based solutions."

Jeff McCarthy, one of the contest judges and a general partner at North Bridge Venture Partners, gave Pereira's concept a thumbs up based on the credibility of the founder, the fact that what Pereira is proposing solves a real problem and that it boasts a good value proposition for equipment makers and buyers.

Fellow judge Richard Dale, a principal with Sigma Partners, says Pereira "clearly knew the landscape, had a smart idea, did not undersell the competition or

oversell himself."

Jonathan Wolf, a contest judge and co-founder of management appliance vendor Goldwire Technology, says the breadth of ideas contributed and the thoughtful presentations of the finalists impressed him. He emphasizes that just because a company doesn't convince venture capitalists or other investors to plunk down millions of dollars to back it doesn't mean the outfit isn't worth establishing.

"There are a lot of great businesses out there — not \$100 million companies that the VCs will want to invest in, but great businesses that will support a small company and serve a real need in the market," he says.

Ryan Jones, an associate at Commonwealth Capital, says, "As a first-time entrepreneur with substantial industry experience, Joe represents the individuals we were hoping to meet through the *Network World* contest. There are very few other opportunities that bring together so many entrepreneurial IT veterans." ■

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Short Takes

■ **Cisco** is adding an 802.11b/g wireless LAN card to its **3200 Wireless and Mobile Router** for outdoor networks. The package, dubbed the Metropolitan Mobile Networks Solution, can support wireless LAN and cellular WAN connections. The intent, Cisco says, is to extend a Cisco wired municipal or government network over a large outdoor area for police, fire, building inspectors and other users. The 3200 router can be mounted in vehicles or on utility poles. The new card costs \$900.

■ **Asanté Technologies** last week introduced Layer 2 Gigabit Ethernet switches aimed at corporations. The **IC36000 Series** of switches include 24- and 48-port boxes with all ports supporting 10/100/1000Base-T connections. The boxes also support up to four modular small form-factor pluggable ports for fiber-based Gigabit uplinks to a backbone. The 48-port IntraCore 36480 with four SFP ports costs about \$5,000, and the 24-port IntraCore 36240 costs about \$2,500, including four SFP ports.

■ A new security appliance from **Blue Coat Systems** will let companies scan Web traffic to their network at a high speed, spotting viruses and malicious file downloads from Web pages or Web-based e-mail at the network perimeter. The **Blue Coat ProxyAV** is a 1U appliance that scans traffic to Web browsers for Trojan horse programs, Internet worms and malicious content buried in HTTP traffic. The appliance is available in 400 and 2000 series versions. The 400 series comes in two models: the 400-E0, which features an 850 MHz Intel Celeron processor and 512M bytes of RAM, and the 400-E1, which comes with a 1.26 GHz Intel Pentium III processor. The 2000 series ranges from the 2000-E0, which features a 2GHz Intel Xeon processor and 768M bytes of RAM, to the 2000-E3, which features two 2.4GHz Xeons and 3G bytes of RAM. The Blue Coat Proxy AV costs from \$4,500 to \$21,000.

Juniper SSL boxes ease net access

■ BY TIM GREENE

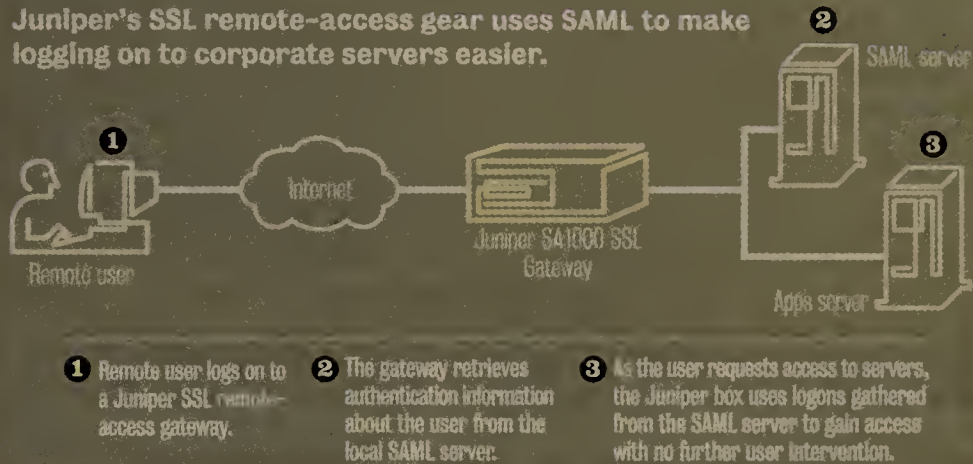
Juniper is adding support for Security Assertion Markup Language to its remote-access gear, technology that lets users sign on once to a Secure Sockets Layer remote-access gateway and reach network resources without further authentication.

Juniper's SA 1000, SA 3000 and SA 5000 gateways sit between the Internet and corporate servers, proxying SSL sessions between remote computers and servers. When end users wanted to reach a particular application, they previously had to first authenticate to the Juniper device, then to the server they wanted to reach.

Juniper's competitors include Aventail, Check Point, Nortel and Whale Communications, but none of them supports XML-based SAML in their devices. Without having to remember passwords and log on to every application they want to access, users will find working over an SSL Internet link less cumbersome, the company says.

Simple remote access

Juniper's SSL remote-access gear uses SAML to make logging on to corporate servers easier.



With SAML support, users will authenticate to the Juniper box, and the Juniper device checks with a SAML server for that user's logon information, which it then supplies to servers as needed. The SAML standard defines request and response mes-

sages that security domains use to exchange authentication, attribute and authorization information in the form of trust-assertion messages about named users and resources.

See Juniper, page 18

Peribit gear boosts WAN performance

■ BY TIM GREENE

Peribit is introducing a set of equipment and features to boost site-to-site WAN performance by compressing larger chunks of data, overcoming delays caused by high-latency links and utilizing the better WAN connection when a site has an alternative.

The company's new appliance, called SM-500, caches up to 500G bytes of data that it can refer to when scanning WAN traffic. It then looks for large repetitive patterns it can send as shorthand to another SM-500 across a WAN link.

Compression devices work in pairs to seek data patterns that repeat within a datastream and replace these patterns with smaller patterns before sending the data. The receiving box replaces the smaller pattern with the original data. Peribit competitors include Expand, ITWorx, Packeteer and Riverbed Technology.

Traditional compression devices have limited memory to store these patterns and look only for relatively short patterns. Or if they recognize large chunks of data, it is as entire files, so even small changes to the files make it impossible to abbreviate them with compression.

SM-500 views streams of bits, including those that represent data within files. This lets the device recognize large patterns within files so if small changes are made, the device still can compress large chunks of the files. The company says it can store large patterns on disks, keeping recognized patterns in its library indefinitely. The new device is expected to be available in August and costs between \$9,000 and \$40,000, depending on the size of the WAN link connected to it, ranging from 256K to 20M bit/sec.

Electric utility Ameren Services in St. Louis is looking at two of Peribit's new features in particular: forward error correction and TCP spoofing that Peribit calls Active Flow Pipelining. Ameren hopes the Active Flow Pipelining will improve throughput on some of the firm's finicky T-1s, says Roger Luechtefeld, senior engineer in Ameren's network engineering department.

Lost packets force retransmissions, and when the link is compressed, "we're losing a larger chunk of data," he says.

Peribit calls its caching and compression capability Network Sequence Mirroring. It is meant to augment its earlier, short-pattern recognition technology called

Molecular Sequence Reduction (MSR). SM-500 also supports MSR so it can interoperate with Peribit SR appliances that only perform MSR.

Peribit also is introducing an SR device called SR-100 for speeding connections between data centers. It supports 155M bit/sec OC-3 connections while the previous fastest SR was the SR-80 at 45M bit/sec. It does this by aggregating the compression engines in up to six SR-50 devices to create one compression device. SR-100 costs between \$24,000 and \$100,000, depending on how many SR-50s are added to it.

The company is releasing a new version of its software called SR Version 5.0 that adds the ability to monitor two connections — say a frame relay link between sites and the Internet connections to those sites. Users can set policies that describe the latency, packet loss and jitter on the connections and route applications to the appropriately performing link for each application.

SR 5.0 also adds IPSec tunneling capabilities to all its devices. So after traffic has been compressed, it is encrypted, but the maximum speed of an IPSec connection between Peribit boxes is 15M bit/sec. ■

WIRED
WINDOWSDave
Kearns

Last time out I ranted about installing a service on my new Linux (Fedora, in this case), a kindly reader pointed me to a blog rant (www.nwfusion.com, DocFinder: 2629) that appeared at just about the same time. This was complaining about the user unfriendliness of Gnome, the GUI designed and supported by Ximian (now Novell) for the Linux desktop. Specifically, it talks about default folder names and application actions on them — Jane User doesn't want to have to remember folder navigation, she just wants to get a document (or a picture, or a song) with a minimum of hassle.

To control or not to control, that is the question

It isn't just Linux that needs help, though. Windows users have many of the same problems. Especially networked Windows users. While many Windows applications do default to folders called "My Documents," "My Pictures," "My Music," and savvy users understand they can create subfolders within this structure to aid organization, why can't applications specific to music or pictures continue with the metaphor? Why aren't music titles stored as "cuts" on "platters" stored in "jukeboxes"? Why not automatically organize photos by albums or events? One reason that prevents this sort of activity is you, the network manager.

When users have "home" directories/folders on network storage, they're usually given full rights to create, maintain and remove files from that area. But frequently network managers ask how they can allow full rights for files while preventing users

from creating sub-folders. It's a question I've never understood, although I've been given dozens of justifications for it.

I'm not looking for anarchy or a straight jacket here. You can suggest (even create) a template-like folder structure for new users and offer classes, seminars or tutorials, on efficient, electronic organization and storage.

The application vendors should do a better job of standardizing default storage locations and names (even as aliases) while still letting users override those choices and pick their own storage metaphor. This isn't nuclear physics — everyone has experience organizing their "stuff" (socks, bills, books, DVDs) so why not a) let them do it and b) use familiar metaphors for it? Sounds like a plan.

Kearns, a former network administrator, is a freelance writer and consultant in Silicon

Valley. He can be reached at wired@vquill.com.

Tip of the Week

Speaking of plans, July used to be a month to plan your vacation because very little was happening. This year, though, the **Catalyst** conference begins July 19 (DocFinder: 2630), the **Open Source** conference starts on July 26 (DocFinder: 2631), and **LinuxWorld** begins the week after that (DocFinder: 2632). I'm planning to be at all three. Maybe you should, too.

Acopia brings network intelligence to storage

■ BY DENI CONNOR

Looking to let customers more easily manage their storage consumption, add or delete storage and manage storage utilization, start-up Acopia last week released its first offerings.

The company's Adaptive Resource Networking 6000 and ARX 1000 switches link to a local Ethernet switch and tie together corporate network-attached storage (NAS) appliances and file servers under a unified umbrella. The software that ships with the ARX 6000 and ARX 1000 creates one global namespace for all the attached devices, so storage resources can be pooled, managed from one location and reconfigured as needed.

"[Before the ARX] each application was a silo situation — the other guys didn't know when there is extra capacity on the network," says the executive director of technology for a large media company in the Northeast who requested anonymity. "With global name space and a tiered storage model you can improve the efficiency of the storage you already have."

The ARX 6000 and ARX 1000 manage Unix/Linux Network File System and Microsoft Common Information File System data. The switches will manage the unstructured data — files, spreadsheets and PDFs — residing on NAS and direct-attached storage. According to Enterprise Storage Group, unstructured data accounts for 80% of a company's data. As networks grow and the amount of storage capacity increases, this data becomes distributed throughout the network, where it is difficult to manage.

Warner Music in Burbank, Calif., has 20T

bytes of data on file servers distributed across its network, which consists of millions of files ranging from .wav and MP3 to artwork for CDs. It uses the Acopia switch to consolidate these file servers.

"As we continue to double our storage infrastructure every year, the capital expense of the infrastructure and the operational costs to manage it are more important to control and manage," says Mike Streb, vice president of IT services for Warner Music. "Acopia's product lets us quickly gain a higher utilization of [storage] and eliminate the growing burden of manually managing data migration."

Acopia was founded in January 2002 by Cheng Wu, founder of both Arrow-Point and Arris. Cisco acquired Arrow-Point in 2000 for \$5.7 billion; Cascade acquired Arris in 1996 for \$145 million. The company is funded for \$40 million from Star Ventures, St. Paul Venture Capital, Charles River Ventures, Accel Partners and Cheng Wu.

The ARX 6000 is a chassis-mounted box that stands 13U high. It has 24 100/1000M bit/sec Ethernet ports and can process as many as 60 million files per hour. The ARX 6000 has a total throughput of 10G bit/sec. It costs about \$150,000.

The smaller ARX 1000 is available in a 2U-high configuration. It has six Ethernet connections and can process 10 million files per hour. The ARX 1000 costs \$45,000. ■



Storage

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DocFinder: 5434 www.nwfusion.com

Security appliance protects corp. gateways

■ BY CARA GARRETSON

Attempting to give corporations a low-cost way to fight spam and viruses, WorkGroup Solutions last week released a new version of its security appliance with enhancements to its reporting and virus-detection capabilities and added a directory harvest defense mechanism.

In Version 2.0 of SpamGate, WorkGroup Solutions has expanded the reporting capabilities of the e-mail appliance's included software by adding the ability to filter data by recipient, sender or IP address, company officials say. With this tool, administrators can track how much spam an organization receives and determine which users get the most unwanted messages.

The company also has enhanced SpamGate's anti-virus capabilities with the ability to detect HTML exploits that mask executable files and Web bugs that track users, officials say.

To help prevent directory harvesting at customer sites, SpamGate 2.0 checks the source of each incoming e-mail against a list of valid addresses and discards invalid addresses, the company says.

SpamGate sits at a corporation's gateway and uses a number of spam-detection tools, including heuristics. Heuristics is a method that identifies unwanted e-mails by looking for telltale signs in spam. It also leverages Bayesian algorithms, which "learn" what an organization deems spam and what it considers legitimate e-mail.

WorkGroup promises SpamGate will capture 97% of spam coming into an organization. SpamGate competes with e-mail gateway appliances from IronPort and CipherTrust.

WorkGroup says the cost of its appliance ranges from \$1,750 for up to 200 users to \$3,550 for organizations with up to 5,000 users. It can be installed and configured in less than 30 minutes. ■

Juniper

continued from page 17

SAML support will be attractive to larger corporations that have invested in the costly SAML technology, says Robert Whiteley, a senior research associate with Forrester Research. Smaller businesses don't use SAML technology widely yet, he says.

Companies that grant business partners and customers SSL access to their networks will make doing business with them simpler by eliminating the need to remember new passwords, he says.

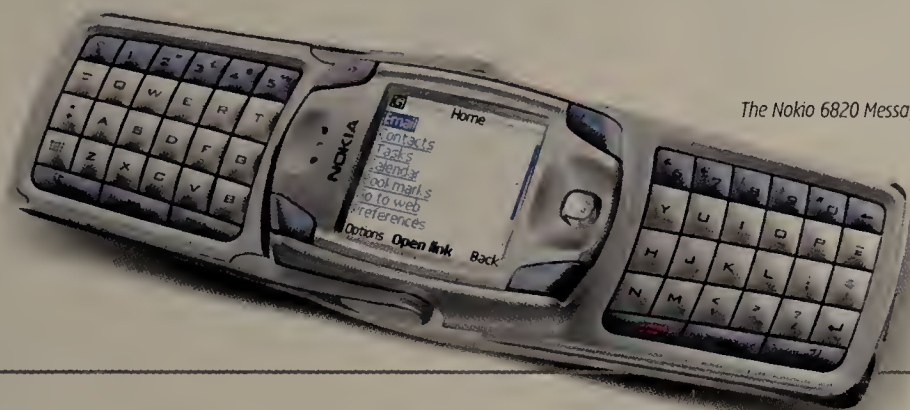
Remote machines could support SAML,

but that would require installing a SAML software agent on each one, which requires time, money and ongoing maintenance.

SAML support comes with Version 4.1 of Juniper's Secure Access software for its SSL appliances. SAML support comes only with the Juniper Advanced SA software package. Upgrading from Basic to Advanced starts at about \$10,000.

Whiteley says SSL remote-access vendors have engaged in a feature-function war about what their devices can do, but this goes beyond that to how these devices can integrate with other parts of the network infrastructure. ■

Why carry two devices when you can carry just one?



The Nokia 6820 Messaging Device



Time Zone Tim

If your employees are often out of the office serving customers, yet they always need to stay connected, the Nokia 6820 Messaging Device is the right call. A full messaging keypad makes email fast and easy. A color screen enhances readability. And because Nokia business mobility offerings go beyond phones to enable sophisticated back-end secure mobile connectivity, you can give your work-



Nokia security appliance

force the advantage of mobile access to critical data such as sales numbers, inventory levels, financials, and more. When you think about it, with the



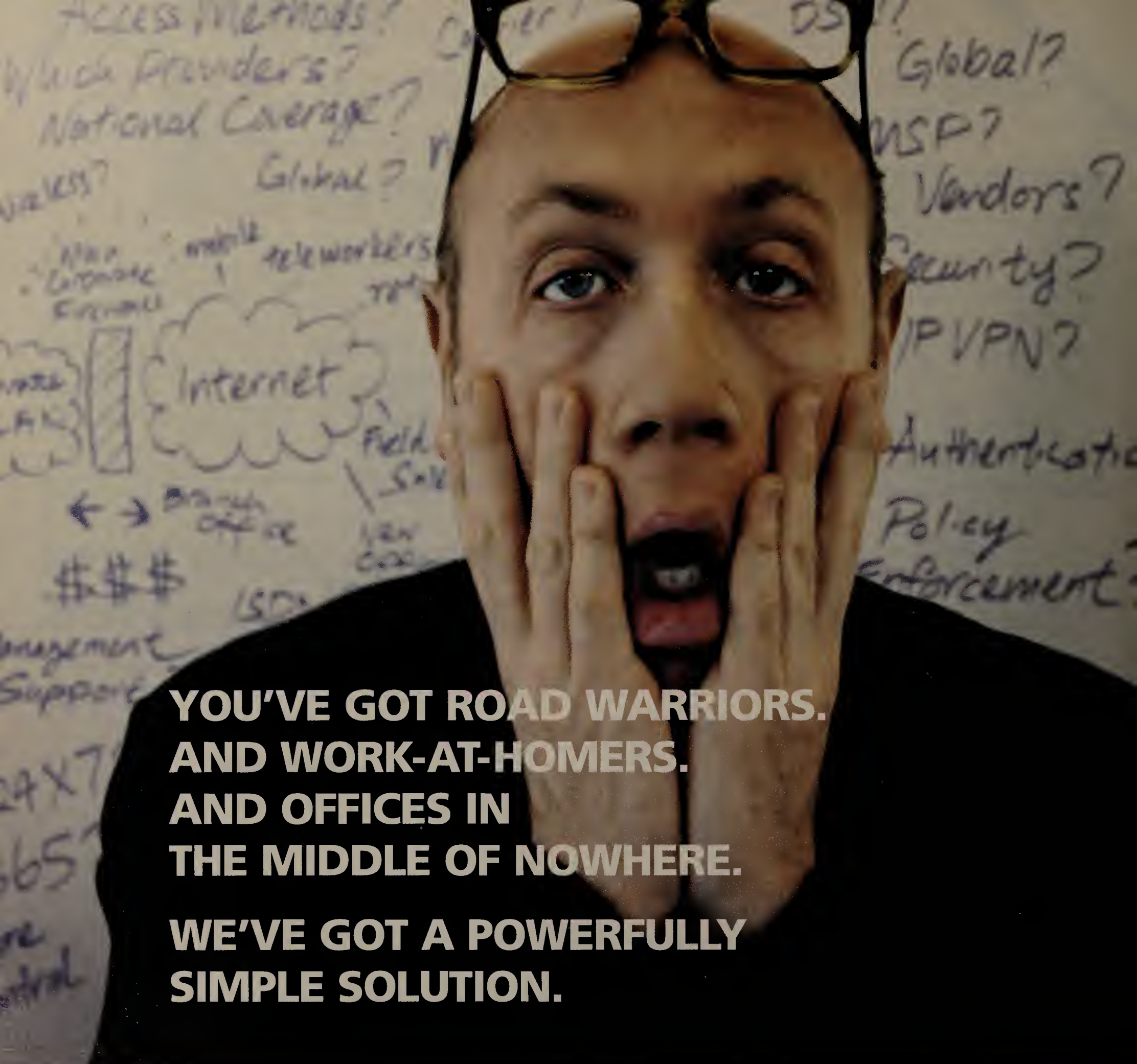
Never in the Office Noro

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Enterprise Applications

■ PORTALS ■ MESSAGING/GROUPWARE
 ■ E-COMMERCE ■ SECURITY
 ■ MIDDLEWARE ■ DIRECTORIES
 ■ NETWORK AND SYSTEMS MANAGEMENT
 ■ WEB SERVICES

Q & A Mgmt. software critical to HP's plans, exec says



Over the past two years, HP's OpenView management software division seemed to be warming the bench in the company's overall game plan. The \$80 billion network giant pulls in revenue from servers, storage and network devices, and earnings from consumer products such as printers. OpenView seemed to be on the sidelines, while boasting something of a cult following among users. HP says its management software will play a more important role in the company's utility computing plans, known as Adaptive Enterprise, which involves hardware, software and services working together to create dynamic data centers. Nora Denzel, senior vice president and general manager, Adaptive Enterprise and Software Global Business Unit at HP sat down with Network World Senior Writer Denise Dubie at HP Software Forum 2004 to discuss how management software will help HP champion its utility computing vision.

Where is the company in executing on its Adaptive Enterprise, utility computing plan?

Adaptive Enterprise is a three- to five-year project. And it's not an HP marketing exercise by any means. We reorganized our company, our products and our teams around it. We really run it as a huge cross-company, horizontal initiative. And it affects everything we do.

Its roots came from what we learned through our own transformation that we're still in the throes of. We internally transformed 87 different vertically oriented silos of stuff — from everything to salesforce to order entry to HR — to a more standardized simplified integrated infrastructure. Now we're working on the business processes that we need to be much more adaptable.

We are offering the pragmatic steps that a company would take to become more agile. We allow customers to really think big, and then our skill is translating the infrastructure-agnostic road map into what steps customers need to take specifically. We believe that's where all the action is in the next three to five years.

We're strong in the infrastructure layer, the infrastructure manageability and application services levels as well. We're just now branching into the business

See HP, page 22

Orchestria hones its compliance tools

■ BY ANN BEDNARZ

Software maker Orchestria this week is expected to unveil a new version of its

compliance-monitoring software that is aimed at helping companies manage how employees use unstructured electronic communications such as e-mail, instant messaging and the Web.

Orchestria is targeting companies in financial services and other tightly regulated industries that need to make sure the information being shared via employee communications is in accordance with the law. Its Active Policy Management 3.0 monitors messages in real time and alerts users to possible compliance breaches — such as document-sharing violations or inappropriate disclosures — before suspicious content gets sent.

For example, if an employee tries to send a document to a client without a requisite disclaimer, Orchestria's software can warn the employee to add the disclaimer. Or if an internal message from an employee in the research department to someone in the investment banking division violates corporate information boundaries, the software can block the exchange.

Users say there's a market for such tools. Regulatory initiatives are driving companies to keep better tabs on how corporate information is shared and stored, according to the Network World 500, a survey of 500 network IT executives conducted by *Network World* and Research Concepts. Among respondents, 46% said they will upgrade their applications or purchase new

Regulatory crunch

Companies will spend
\$5.5 billion
 this year to meet
 Sarbanes-Oxley Act
 requirements, according
 to AMR Research.

applications this year to ensure compliance with regulations such as the Sarbanes-Oxley Act for financial accountability and the Health Insurance Portability and Accountability Act for protecting patient privacy in healthcare. Another 10% will do so in the next one to two years, according to the survey.

Software tools designed to assist regulatory compliance include products that handle data collection, storage, retrieval and deletion, from vendors such as EMC, FileNet, Meridio and Zantaz; information analysis software for discovering and interpreting content, from vendors such as Orchestria and Convera; and security tools for restricting access to content, from vendors such as Courion.

New in Orchestria's Active Policy Man-

agement 3.0 is the option to deploy the software on a central server to extend coverage to mobile devices; previous versions required the software to be installed on individual desktops. Server-based deployment lets companies monitor messages conducted through Microsoft Outlook Web Access or sent from corporate-issued wireless handheld devices, says Paul Johns, Orchestria's vice president of global marketing.

The vendor's server-level agents are available for Microsoft Exchange Server. These agents intercept incoming and outgoing e-mail messages and send them to a pool of distributed "policy engines" to make sure the content complies with a company's policies. The policy engines tell the server agents if messages should be processed normally or blocked. If a message is blocked, the software informs the sender, recipient and appropriate legal or compliance staff and explains the nature of the infraction.

Version 3.0 also adds new capabilities for monitoring IM conversations. To make it easier for staff to retrieve and review IM conversations, the software combines message threads into "conversations" rather than capturing each IM as a separate communication, as it did in previous versions.

Active Policy Management 3.0 costs between \$75 and \$150 per seat. ■

Short Takes

■ **Documentum** last week released a new version of its hosted collaboration software, **eRoom.net**. The latest version is based on eRoom 7.0 software, which includes project planning, search and management tools. It also features some pre-configured business applications including compliance and finance. Version 7.0 now lets users set up an unlimited number of eRooms, eliminating per eRoom pricing. The service is priced at \$20 per user per month for 100 users.

■ **Ounce Labs** announced that next month it will make available its security testing tool, **Prexis**, which can examine applications at the source and binary code level for security flaws. Prexis, which runs on Microsoft or Linux, starts at \$100,000.

'NET
INSIDERScott
Bradner

Is there a little devil on the way?

Sen. Orrin Hatch (R-Utah) last week introduced legislation called the Inducing Infringement of Copyrights Act of 2004 just before press time. This follows a leak two weeks ago of an earlier version of the bill that is quite a piece of work if you read it literally. But I wonder if that's what we're supposed to do.

The leaked version, which went by the name of the Inducement Devolves into Unlawful Child Exploitation Act of 2004, had some people active in the copyright debate going ballistic. It's easy to see why.

The core of the act, at least in the early

version (I haven't had access to the actual bill yet), extends the definition of a copyright infringer to "whoever intentionally induces any violation" of copyright laws. It says: "intentionally induces means intentionally aids, abets, induces, counsels or procures, and intent may be shown by acts from which a reasonable person would find intent to induce infringement based upon all relevant information about such acts then reasonably available to the actor, including whether the activity relies on infringement for its commercial viability"

Read literally, this could mean that anyone selling a product that could be used to infringe copyright would be guilty of infringement. Hatch is from Utah and parts of Utah are quite stark and empty (and beautiful as I can attest), but I doubt that none of his constituents use the

Internet or own PCs, copiers, scanners, cameras, VCRs, TiVo, portable music players, paper, pens or pencils. Since all of these could be used to make illegal copies of copyrighted material under the literal wording of this bill, anyone selling any of these could be guilty of copyright infringement. This could get a bit dicey for Intel, Microsoft and pencil makers. (By the way, there is a neat Web site all about pencils at www.pencils.com.)

This is not the first time Hatch has come up with half- or quarter-baked anti-copyright infringement ideas (See www.nwfusion.com, DocFinder: 2627). It is entirely believable that he would introduce a bill like this even though at best this bill looks like it was written by the teenage kid of a movie studio executive who was trying to protect his inheritance.

But maybe the draft of the bill has

served its purpose already. Maybe its only purpose was to be leaked just to set off a cacophony of outrage and scorn. Maybe Hatch thinks he can introduce a somewhat less wacko bill that will sail through because it looks so good in comparison.

Conjuring up a bogeyman then killing it off as a way to distract people while you sneak a little devil into the room is not a new concept. If that's what Hatch is doing, then we need to be on the lookout for the little devil. It should be showing up any day now.

Disclaimer: Cacophony at Harvard is hardly new, but the above addition to the Induce cacophony is mine, not the university's.

Bradner is a consultant with Harvard University's University Information Systems. He can be reached at sob@sob.com

Q A

HP

continued from page 21

processes more with products such as [HP OpenView] Business Process Insight for customers to instrument [their networks] and for us to offer outsourcing capabilities.

How is HP integrating business performance into its IT management software?

Over time anyone that only understands one element of IT — the network, storage or applications — will really be handicapped if they don't understand how those elements relate. Also IT managers need not only to understand what the elements' relationships are with the IT service — an IT service could be e-mail or ERP or the Web employee portal — but also with the business processes. The business process is more how work gets done. If you actually understand the elements of it and modify changes in the IT if there's a bottleneck in the process you can improve your earnings per share.

It's incumbent upon IT managers to look left and right, what is my network connected to. And they also have to look up in terms of what's the IT service and what's the ultimate business value that this creates. I think the very nature of IT departments, the structure, the organization and the governance will change.

Where does OpenView management software fit into HP's overall approach to delivering Adaptive Enterprise products and services to customers?

OpenView is hugely strategic to HP overall. In terms of investment, the OpenView business unit did 11 acquisitions last year. It's one of the four strategic initiatives of the company. Those are rich digital media, security, mobility and manageability.

OpenView was always a line of business that had respect, but now it's a fundamental underpinning to HP's strategy. It is a huge part of how one monitors, manages and measures their environment.

Eleven acquisitions is a lot of integration work for HP. Where is the company in integrating the technology into OpenView?

We learned a lot through the merger with Compaq. For OpenView, we identified the technology gaps and were able to fill them relatively simply. In terms of technology integration, most everything we bought was already a partner of OpenView, and OpenView already had open interfaces to, say, Novadigm and other technologies. TruLogica and SelectAccess are already integrated together, for instance. We do a lot of planning six months in advance of an acquisition to make the integration process go as smoothly as possible. The Compaq acquisition gave us the confidence and the skill to integrate that way.

One technology gap noted by industry watchers is around applications. Is HP looking to acquire any application life-cycle testing and/or development capabilities to compete with those technologies from Computer Associates or IBM?

First of all, we don't really follow or copy either a CA or an IBM. We're running our own race, and the value is really about the heterogeneous management of large complicated data centers and the relationship of all those things in there. The fundamental pieces you need for that, we have — whether it's really good infrastructure management or IT services management, and now we're moving into business process management. In terms of the applications, we have so much on there now. We have Transaction Analyzer, we've done more sophisticated probing into the diagnostic level of the application that I think customers would be very hard-pressed to need something that we don't currently offer.

If you don't consider the competition in product plans, how do you differentiate HP from others in the management market?

When you look at the market, the competition is 'other.' That is the dominant share for things that would be classified as management and data center automation and virtualization. Either customers have written their own, don't use anything or use it from a host of very small companies. When you add up the top three big players, HP included, is less than 30% of the market. It's wide open, especially in the business

process side. There are not a lot of properties there already. While we certainly do have those attack programs if you convert from CA or Remedy or so on, those are normal policies that any salesforce that's any good will have. But in terms of huge competition, it's just other. It's either doing nothing or scads of start-ups and very tiny niche players.

How does OpenView balance the big picture and practical management issues, such as bringing new applications online such as VoIP, wireless and so on?

You're allowed to think big, but then you act in very small ways, with very pragmatic steps. For example, we are doing IP multicasting with Cisco. Now with Network Node Manager, you can manage a wireless network as well as IP telephony — those are just devices at the end of the network. We're investing heavily in root-cause analysis, and we did a partnership with Packet Design to go much deeper than we had before.

With all the focus on IT services and business processes, where does network management come into play for OpenView?

Because of the nature of networks and the geographic distribution as well as the standardization, the whole concept of self-healing and management-less networks is years off. Now that said, you can automate a lot of it. You can just cut down a lot of noise the networks are spitting out and correlate those things together. Elements themselves and the network are becoming much smarter. Because the network is much smarter, you can link it with so many other things and the relationships of that network becomes more complex. It is becoming more automated and more responsive to change. But we still need network administrators. ■



More online!

This interview with Nora Denzel continues online.

DocFinder: 2634

Service Providers

■ THE INTERNET ■ EXTRANETS ■ INTEREXCHANGES AND LOCAL CARRIERS
■ WIRELESS ■ REGULATORY AFFAIRS ■ CARRIER INFRASTRUCTURE DEVELOPMENTS

Akamai attack underscores DNS risks

■ BY JENNIFER MEARS

An attack earlier this month aimed at DNS services for high-profile Akamai Technologies customers should be a wakeup call for enterprise users to ensure they have contingency plans to deal with a growing number of Internet threats, analysts say.

"This really isn't a [content delivery network] story as much as it is a DNS story," says Lydia Leong, principal analyst at Gartner. "The customers impacted happened to be Akamai customers, but the real question has to do with DNS technologies. I don't think this is any reason to get gun-shy with CDNs, but my advice to clients regardless of whether they outsource their DNS is that they should have a contingency plan."

For example, Google, which was hurt by the June 15 attack, redirected requests from Akamai's servers to its own to keep its site up, Leong says.

In addition to creating an alternate set of DNS records, companies also could deploy excess Web server capacity to handle re-

quests should DNS-based global load balancing fail and could demand service-level agreements with their service providers in the case of non-performance, among other things, Leong says.

Paul Mockapetris, who invented DNS and is chairman and chief scientist at IP address infrastructure software vendor Nomium, says companies should put filters at the edge of their networks to try to address distributed denial-of-service (DoS) attacks. He says hackers are targeting DNS servers more often because DNS is key to most Internet services.

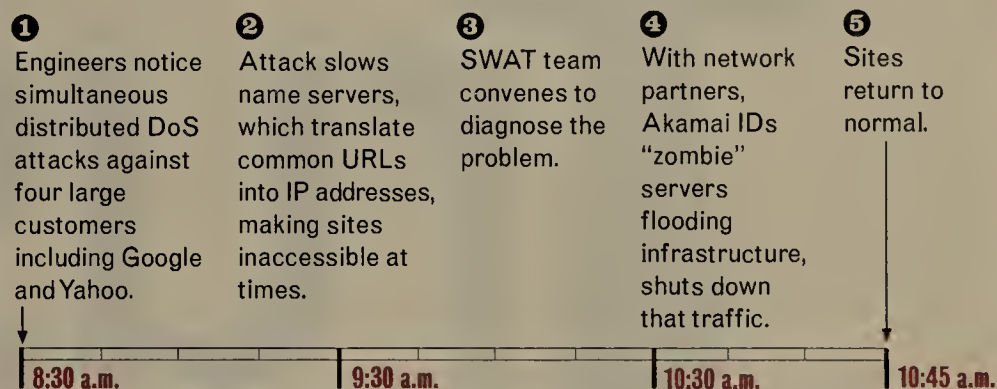
"We expected [the use of] DNS to grow through new applications and a bunch of other things, but viruses and spam and these attacks have been providing a lot of the growth," he says.

Despite the "sophisticated and large-scale" nature of the attack, just 1% or fewer than a dozen, of about 1,100 Akamai customers were affected significantly, meaning that more than 20% of their users had trouble accessing their sites, says Tom Leighton, chief scientist at Akamai.

The distributed DoS attack, apparently

Akamai under attack

DNS-focused attack slowed performance for major sites on June 15. A look at what happened:



propagated by "zombie" servers set up via viruses and used to flood the DNS servers with requests, was first detected at 8:30 a.m. EST. DNS servers translate common URLs into numerical IP addresses, which a client computer uses to access Web sites.

Leighton says only about 4% of Akamai's customers were affected and only half had any noticeable problems. The attack was

thwarted and service returned to normal by 10:45 a.m. EST, Leighton says.

Akamai, which hosts some of the Internet's largest sites, including Yahoo, Google and Microsoft.com, is no stranger to attacks, but Leighton says in the past the service provider has been successful in defending against them.

"It was discouraging to see one get through in the limited way it did," Leighton says. "It makes us more educated and makes us redouble our efforts to try to prevent that from happening again."

In response to this incident and an unrelated outage in May that Akamai blamed on an internal glitch in its content management software, Akamai customers have mixed reviews.

An online technology executive at a large media company, who asked not to be identified, says his firm uses Akamai, but that its sites weren't hurt by the latest problem.

"The May outage concerned me more because it was the result of a bone-headed flaw, but again they responded pretty well, kept us pretty well informed and so far seem to be serious about tightening up the controls," he says. "There haven't been many other incidents over the last three years or so. . . . If it becomes a habit or we have a longer duration outage I will become more concerned."

A vice president of technology at a media company, who also asked not to be identified, says the May incident, which knocked his site offline for 45 minutes, is causing him to consider making some changes.

"These problems, combined with Akamai's claim of being a 'superior' CDN service to other CDNs and thus charging a premium price, is making me re-evaluate and look at redundancy options," he says. ■

Short Takes

■ **Sprint** last week announced it is upgrading its nationwide wireless network with **Evolution Data Optimized** technology. The upgrade will increase wireless data transmission speeds from about 200K bit/sec to a range of 300K to 500K bit/sec. The carrier says it will spend \$1 billion on the upgrade. Lucent, Nortel, Motorola and Samsung, Sprint's current wireless equipment providers, all will provide gear for the EV-DO upgrade.

■ An industry organization representing providers **Yahoo, Microsoft, AOL** and **EarthLink** last week released recommendations they contend would greatly reduce spam. The Anti-Spam Technical Alliance's Statement of Intent includes a list of suggestions and "best practice" recommendations for ISPs, e-mail service providers, governments, corporations and bulk e-mail senders.

Powell affirms promise to go light on regulation

■ BY TIM GREENE

FCC Chairman Michael Powell played cheerleader to the telecom industry last week during his SuperComm 2004 keynote interview, promising to keep a light hand on regulations to stimulate investment in IP service provider networks.

Powell said he expected 2005, not 2004, to be the year when telecom fully recovers from the past three years of hard times. "I wouldn't say the industry is out of the woods," he said, "but we can see a pasture at the end of the tree line."

Matthew Flanagan, president of the Telecom Industry Association, interviewed the FCC chairman on stage.

Powell said consumer awareness of IP services makes it clear that service providers must embrace packet networks. "It's not debatable any more if your company is going to have to become IP-enabled to survive," he said.

He said he was pleased that President Bush set 2007 as the target for ubiquitous

broadband access to service provider networks, although he regards it as ambitious. To reach it, every possible access technology will be needed and that means FCC policies on all of them. That role will be guided by a light touch, he said.

"We should be driven to do everything we can to stimulate applications," Powell said, and that means doing as little regulation as possible.

By minimizing the red tape to get new services approved, the less money service providers have to spend on lawyers. "They can redirect that money to switches and fiber," he said.

He also said the commission should experiment with altering regulations to encourage growth, such as offering more unlicensed wireless spectrum, squeezing in more bandwidth within broadband spectrum and making it easier to transfer spectrum licenses. "Dramatic changes are needed. We cannot act fast enough to let the use of spectrum reach its highest and best use," Powell said. ■

EYE ON THE CARRIERS

Johna Till Johnson



Presence is in the eye of the beholder

In Lewis Carroll's *Through the Looking Glass*, Humpty Dumpty tells Alice, "When I use a word, it means just what I choose it to mean — neither more nor less." She replies, "The question is, whether

you can make words mean so many different things."

Great question, particularly when the word is "presence."

Presence is hot. Service providers want to

offer it. Pundits say it will revolutionize business processes. And vendors of products from security platforms to collaboration suites to IP telephony say their offerings are "presence-enabled."

But what, exactly, is presence?

In a nutshell, presence is the ability to provide real-time context about a user. What sort of context? Depends on whom you ask. Vendors and service providers with roots in traditional telephony define context as primarily about physical location and reachability. Location-based services provide information to users based on their physical locations (think 911 call centers or the OnStar satellite service). Here, context means geography.

A variant of this definition includes the type of end device from which the user is currently reachable. For example, Mitel Networks offers an HP Ipaq-based IP phone that lets the IP PBX know when it's docked at the desktop. Calls automatically can be routed to the user's desktop phone. But when the user pockets the Ipaq to go downstairs to the cafeteria, calls are routed to the Ipaq.

Similarly, AOL Instant Messaging and other consumer IM services route IMs to user cell phones when people are not at their desks. In these examples, context is not about where you are, but how you can be reached.

A third definition involves who you are and what you know. This is used in call centers that feature skills-based routing. Calls are routed to agents who can address specific inquiries. In newer, presence-equipped customer-contact centers, an agent might request support from experts in a particular field. Such experts are listed as individual IM groups.

Finally, vendors of software collaboration suites view context as what users are doing. Are they composing a memo in Word? Accessing an accounting module in SAP? Writing code? To these vendors, the ability to locate someone engaged in a particular project or working within an application is what context is all about.

The upshot is that virtually every major vendor is offering presence-enabled collaboration. As they do, they're trespassing onto each other's turf. For example, collaboration suite vendors view voice as an add-on to their collaboration solutions, while IP telephony vendors see collaboration applications as an add-on to theirs.

This tees up an unusual competitive constellation in what we're calling the "presence wars." Software players (think Microsoft, Oracle, Sun and IBM) are going head-to-head against network vendors (Cisco, Avaya, Nortel and Siemens).

Who will win? It is too early to call. "The question is," said Humpty Dumpty, "which is to be master — that's all."

Johnson is president and chief research officer at Nemertes Research, an independent technology research firm. She can be reached at johna@nemertes.com



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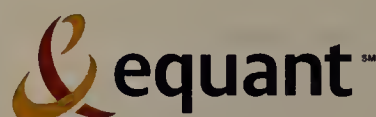
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Special Focus

SERVICE PROVIDERS: Metro Ethernet, Act II.

Metro Ethernet gaining a foothold in market

■ BY DENISE PAPPALARDO

While many of the start-ups that contributed to the metropolitan Ethernet service hype are now gone or transformed, the surviving providers have risen to the challenge of providing a useful, cost-effective offering for many customers.

Back in early 2000 there were a handful of service providers, such as Yipes, Telseon and Cogent, that launched big plans to offer metropolitan Ethernet services to the masses. A punishing marketplace quickly showed the early players that this wouldn't be an easy task.

A case in point is Yipes. The company filed for bankruptcy protection in early 2002 and emerged that fall offering metropolitan Ethernet services in 10 markets. Telseon was acquired in 2002 by metropolitan Ethernet service provider OnFiber, which counts Wal-Mart and Cisco as customers. Cogent seems to be going strong, perhaps because it diversified in 2002 when it acquired most of PSINet's assets. This year Cogent also acquired metropolitan Ethernet service providers in France and Germany.

As metropolitan Ethernet service providers have changed so have the forecasts. In 2002 IDC predicted that revenue from metropolitan Ethernet services would increase to \$740 million by 2006. The consulting firm has reeled in that estimate to about \$691 million in a report published in March.

Customer options abound

Despite bumps in the road, users are turning to a multitude of providers, including AT&T, Verizon, Qwest, Time Warner Telecom and XO Communications for metropolitan Ethernet services.

"Metro Ethernet has a lot of potential, and it will grow," says Ron Kaplan, a research manager at IDC. "It's a low-cost-per-megabit alternative to private line."

Customers are using Ethernet at headquarters to interconnect offices and also to connect to data centers that might be collocated across town, Kaplan says. That is exactly how Presbyterian Healthcare Services and WatchGuard Technologies are using the service.

Last year, Presbyterian Healthcare had a point-to-point ATM network in Albuquerque, N.M., to link its three main healthcare facilities and its one data center. The company had one OC-3, 155M bit/sec ATM circuit from Qwest to its data center and two T-1, 45M bit/sec circuits to Presbyterian Hospital, Presbyterian Kaseman Hospital and Presbyterian Northside Urgent Care facilities.

"We wanted to double capacity at each site," says Aaron Jaramillo, operations manager for data communications at the healthcare company.

Ethernet service adoption

Beyond the hype and billion-dollar revenue forecasts, users are adopting Ethernet services to meet their networking needs.

Based on actual and projected revenue, users are spending the most on metropolitan Ethernet transparent LAN services.

SOURCE: IDC

In the millions

Year	Transparent LAN	Internet access	Wholesale	Total
2003	\$206.9	\$115.6	\$10	\$332.5
2004	\$258.2	\$149.1	\$12.3	\$419.6
2005	\$320.6	\$193.9	\$15.3	\$529.8

Late last year the company turned to Time Warner Telecom to meet the company's bandwidth goals. In October, Presbyterian Healthcare upgraded to an OC-48, 2.488G bit/sec fiber-optic ring. Off of that ring, the company has a 300M bit/sec circuit to its data center and 100M bit/sec connections at its other facilities.

When asked how he was able to negotiate the private use of a single OC-48, Jaramillo says, "it was a none-issue. I asked for it and they said OK." While it's a private ring, Presbyterian has to pay only for the bandwidth it uses. "That was the easy part of our negotiations," he says.

Jaramillo might be one beneficiary of the fiber glut that was a popular topic a few years back. Time Warner Telecom, which has no affiliation to the cable company with the same name, has 11,000 miles of local metropolitan fiber in 22 states in 44 markets. It might be that many users in Albuquerque are not asking for private rings, or that Time Warner wanted to go the extra mile to give customers what they want. While this request was easily granted, finding a price that worked for both parties took more work.

As IDC's Kaplan says, while Ethernet is less expensive than traditional private-line offerings, it is not cheap.

"Pricing was hard," Jaramillo says. "When Time Warner first came back it was virtually the same cost as we were paying [with ATM]. We had to challenge them. We were taking on significant risk by making the change, and there had to be some benefit beyond additional bandwidth."

Jaramillo's tenacity paid off by reducing Presbyterian Healthcare's telecom costs by 15% annually.

Although the healthcare facility went back and forth with Time Warner on pricing, Jaramillo says the negotiation process was "pretty fast," only 30 to 45 days. With other telecom companies, negotiating the contract is a long, "painstaking process," he says.

The upgrade let Presbyterian deploy a digital-imaging application that lets medical professionals send 3-D radiological images across the company's network.

Presbyterian Healthcare's metropolitan Ethernet service essentially acts as a transparent LAN that keeps all of the company's facili-

ties connected. Earlier this month the company also added a 10M bit/sec dedicated Ethernet connection to the Internet at its data center. The company was having latency problems with its local ISP, which was causing headaches for the 160 employees who work remotely and access the network through a VPN that Jaramillo's team manages in-house.

"We put the order in [with Time Warner] on a Wednesday and the line was provisioned on a Friday," he says. "It was faster than we expected."

Presbyterian Healthcare's OC-48 ring should serve the company's bandwidth needs for at least the next five years, Jaramillo says.

Added services key

While doubling bandwidth was Presbyterian's goal, WatchGuard was looking for a little more. The security company has two dedicated 100M bit/sec Ethernet connections to its data center, which is collocated at an Internap hosting facility about 5 miles from the company's headquarters. XO provides one of the 100M bit/sec links and Time Warner Telecom provides the second.

"It hasn't been a big money saver, but it has been a big enabler of enhanced services," says John Deering, systems supervisor at the Seattle company.

About three years ago WatchGuard ditched its dual T-1 lines in favor of 10M bit/sec Ethernet.

The bandwidth increase let WatchGuard move most of its servers to its data center. Initially, the technology company had only its "public presence" servers, which feed WatchGuard's Web site, at Internap. As it increased its Ethernet bandwidth from 10M up to 100M bit/sec, Deering was able to migrate nearly all of WatchGuard's internal application servers from e-mail to financials to Internap.

"It's all about redundancy," Deering says. He's using two service providers on separate fiber-optic rings to provide his Ethernet services. He's also using Internap to host nearly all of the company's servers because it has "a hardened facility with raised floors, redundant cooling systems and redundant power supplies, which I don't have here," he says.

Ethernet provides high bandwidth at reasonable per-megabit prices, which makes it a better choice for a company such as WatchGuard that requires fully redundant network facilities.

Metropolitan Ethernet services have turned out to be the right answer for these users, but it's not for everyone. Because the service is dependent on fiber, it's limited geographically to large cities where carriers have deployed large amounts of fiber, IDC's Kaplan says.

But over the next few years users should expect more flexible metropolitan Ethernet services. Many of the RBOCs have RFPs out to equipment vendors for Ethernet over copper, which would be a different flavor of DSL, Kaplan says. More service providers are looking at providing interworking between their frame relay, IP and Ethernet services, he says. Both Qwest and Verizon have launched such interworking support this year. ■



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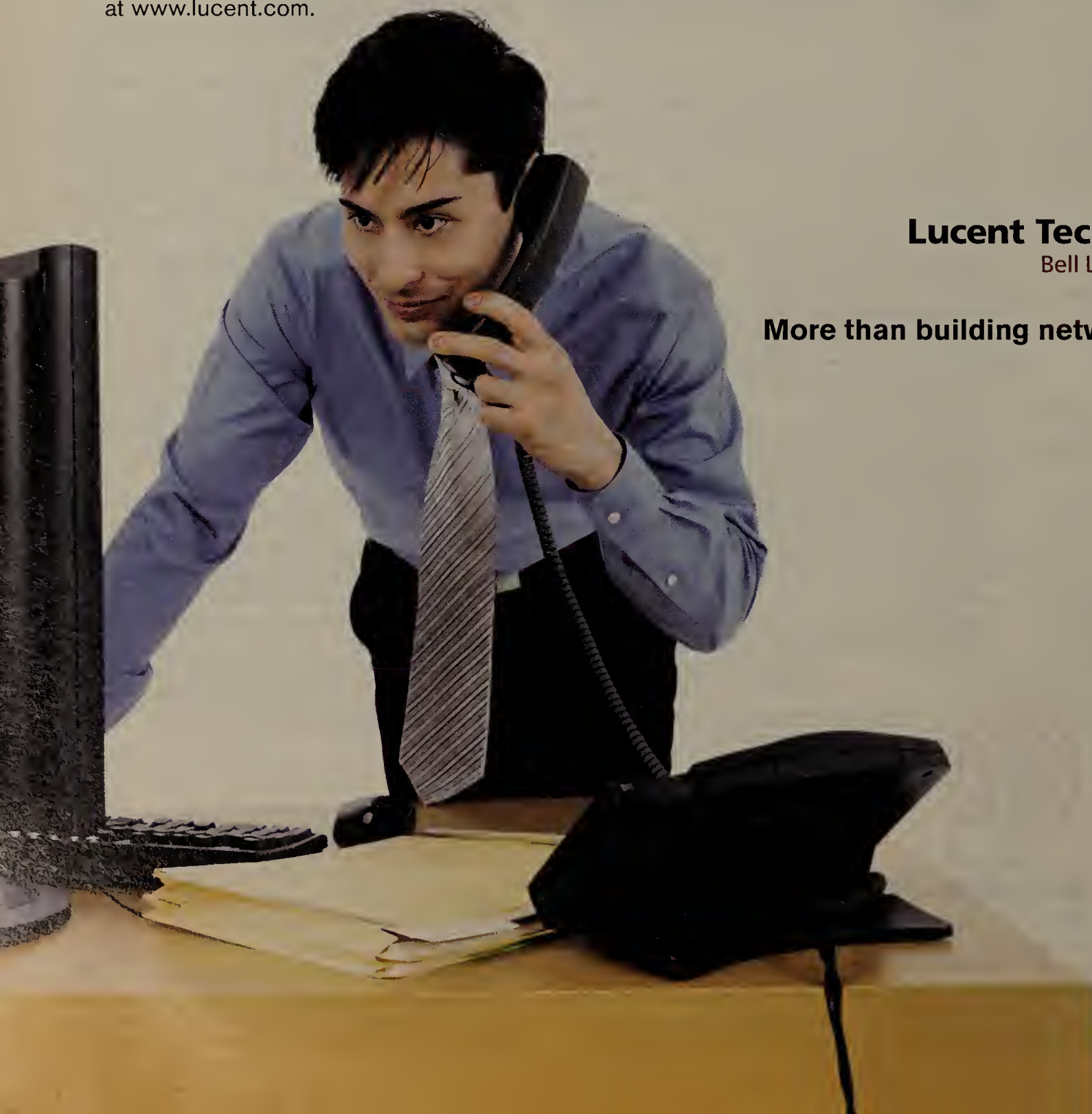
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Technology update

■ AN INSIDE LOOK AT THE TECHNOLOGIES AND STANDARDS SHAPING YOUR NETWORK

DDNS automates DNS database updates

■ BY CRICKET LIU

DNS is the Internet's naming service. DNS maps the names of hosts to their IP addresses, letting users locate Web sites and mail servers. Traditionally, network administrators manually updated DNS databases.

Enter Dynamic Host Configuration Protocol (DHCP), which automates the assignment of IP addresses in a network. DHCP might assign a host only a temporary address, requiring many different addresses in succession. Hundreds or thousands of computers at a site may receive IP addresses in this way. As a result, the number and frequency of IP address changes makes manual DNS administration impractical.

To solve the problem, the IETF extended DNS to accommodate these dynamic networking environments. The IETF developed what is now referred to as Dynamic DNS (DDNS), a standard mechanism for managing the identity of dynamic networks created through DHCP. DDNS is an umbrella term for three related DNS protocol extensions: Dynamic Update, Notify and Incremental Zone Transfer (IXFR). The three DDNS protocol extensions are closely related.

Easing administration

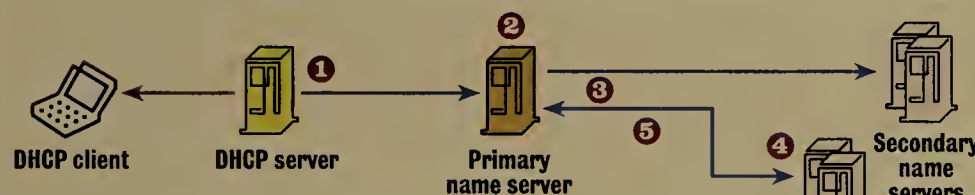
Name servers, typically implemented as software, provide DNS information to computers on the network. The information is divided into administrative units called zones.

Before DDNS came along, network administrators typically administered zone data by editing text files called zone data files. To add information about a new

■ HOW IT WORKS

Dynamic DNS

Dynamic DNS is a standard mechanism for managing the identity of the dynamic networks created through Dynamic Host Control Protocol. Special operations are needed to change names to IP address mappings.



- 1 DHCP server, on behalf of DHCP client, sends update messages to primary name server to add a record to a host's name specifying its IP address, and another specifying the name of the host at that address.
- 2 Primary name server processes dynamic updates.
- 3 Primary name server sends Notify messages to secondary name servers to inform them of changes to data in administrative units called zones.
- 4 Secondary name servers check zone's records on the primary server and request incremental zone transfer, if necessary.
- 5 Primary name server sends incremental zone transfers to secondary name servers.

host, an administrator would add an A (address) record to the host's name, specifying its IP address, and add a PTR (pointer) record to the host's IP address, specifying the name of the host at that address.

Dynamic Update is the basic DDNS operation, letting software such as DHCP clients or servers send special messages to name servers to update zone data. A DHCP server, for example, can send an update message to the primary name server for a particular zone to request that a record be added to that zone to map a DHCP client's name to its new, DHCP-issued IP address. The DHCP server might send a subsequent update message to the

primary name server for a reverse-mapping zone to add a PTR record for the DHCP client.

A dynamically updated zone can change much more quickly than a zone administered by manually editing a zone data file. Unfortunately, DNS traditionally uses a mechanism that reports those changes in intervals of about 15 minutes. That can be an eternity in dynamic-update time scales.

Enter Notify. Notify lets the primary name server for a zone tell the secondary name servers that the contents of a particular zone have changed. The name server sends a message to the secondary name

servers for a zone to say, "The new serial number for foo.com is 10." Secondary name servers that receive these messages verify that the zone has changed and request a zone transfer. This permits rapid convergence of all a zone's authoritative name servers.

A name server determines which other name servers to notify by looking at the name server records for the zone that has been changed. (The name server records list the set of primary and secondary name servers for the zone.) This creates a new problem — much more frequent zone transfers by secondary servers. Because zone transfers entail sending the complete zone data set, this is a waste of bandwidth when only one or a few changes have occurred.

To make these zone transfers more efficient, the IETF developed IXFR, which lets a secondary name server request only the changes between the version of zone data it has and the current version. The secondary might say, "I have serial number 10 of zone foo.com. Please send me the changes necessary to bring me up to date." The primary name server examines a journal to determine which changes correspond to which versions of the zone, then sends a record of these changes — a series of additions and deletions — to the secondary.

Together, these mechanisms meet the basic requirement of letting programs update zone data without administrator intervention and then deal with that capability's consequent complications.

Liu is vice president of architecture for Infoblox. He can be reached at cricket@infoblox.com.

Ask Dr. Internet

By Steve Blass

We're deploying an existing Web service application to a new JBoss server by following the "Getting Started with JBoss" manual from www.jboss.org, but the j2eetutorial examples file doesn't seem to match the documentation. The application is ready for deployment, but we can't seem to get the right files in the right places to make things work. Where can we find a JBoss example that works, or some tools to automate the deployment?

The manual is written for JBoss Version 3.2.3 and Version 1.3.X of the Java Software Development Kit (JSDK). The current production JBoss release is 3.2.4, and using Version 1.4X of the JSDK is recommended. A note in the manual suggests downloading JSDK Version 1.3 of the j2eetutorial package from Sun for use with the examples, rather than JSDK Version 1.4, because the directory structure is not the same. Deployment in JBoss is supposed to be as easy

as copying the application's enterprise archive (EAR) file to the default/deploy directory. Building and installing the EAR file can be automated with JBoss-IDE, an add-on for Eclipse (www.eclipse.org) that provides point-and-click application deployment for JBoss.

Blass is a network architect at Change@Work in Houston. He can be reached at drinternet@changeatwork.com.

GEARHEAD
INSIDE THE
NETWORK
MACHINEMark
Gibbs

A few weeks ago we mentioned that the headers of JPEG images created by Adobe's Photoshop image editor contain three tags — JFIF, Adobe and Ducky — indicating the file is in JPEG File Interchange Format and produced by an Adobe program called Ducky.

We asked if anyone knew why Ducky should be the program's ID. Reader Bill Verzal suggested we go to a certain page on Adobe's Web site (www.nwfusion.com, DocFinder: 2628) for some details.

This page tells us the reason for this eccentricity is that developers have a rubber ducky obsession. If you have Photoshop, check out the page and try the Easter eggs — it is obvious that those coders were clinically obsessed.

Un petit divertissement (as the French would have it) — Bill's signature reads: "There are only 10 types of people in the world: Those who understand binary, and those who don't ..."

After our recent discussion about Did-

Feedback on Ducky and defeating DidTheyReadIt

TheyReadIt, Jim Michael wrote: "As an e-mail administrator for a midsize government organization, a service like DidTheyReadIt.com is not a welcome idea. At first I thought of several ways of preventing our proxy server from allowing access to didtheyreadit.com (all browsers here must go through a proxy to reach the Web, and thus the HTML messages while being rendered are also subject to the proxy's rules), but I could see some holes in that approach. Then a colleague said 'why not simply put didtheyreadit.com in your DNS, pointing at a bogus address?' Brilliant! If the image can't be resolved to the server holding it, tracking doesn't work and life is good again."

Chris Miller came up with a similar solution: "I went about gathering the information on DidTheyReadIt through SMTP tracking (and mail body properties) instead of capturing it through Winsock. As one of Lotus' largest application service providers, DidTheyReadIt is a concern because this type of tracking is not acceptable. As you know, with Notes you can work offline and not have the perweb.nsf database pull the image file, but this was still not acceptable. So we stopped connections from rampell soft.com servers entirely through reverse DNS look-ups and blocklists. It has worked

well so far. I consider you knowing when I read my e-mail just like finding out when I got your voice mail and how many times I listened to it. I can see the conversation now, 'Yes, Mom, yes, I did get it. Yes, I listened to it twice for 48 seconds.'"

Lyman Chapin pointed out that "Gearhead's description of how DidTheyReadIt works neglected to mention that mail recipients can easily defeat the system by selecting 'Block loading of remote images in mail messages' (or equivalent in other mail clients; I use Mozilla/Thunderbird on a MacOS X system) in e-mail client preferences. Not everyone, of course, thinks that DidTheyReadIt amounts to spyware, so not everyone will be interested in knowing how to block it."

With Outlook this setting can be found under Tools | Options | Security | Change Automatic Download Settings, where you can specify that pictures or other content should not be automatically downloaded in HTML mail. There are also options to permit automatic downloads for messages from addresses listed in Safe Senders and Safe Recipients or from Web sites included in the Trusted Zone.

An oddity in the same section is the option, "Warn me before downloading content when editing, forwarding or replying to

e-mail." We have this checked but it appears not to work. Does anyone have any idea what is going on here? Is this just a run-of-the-mill bug? Or is it one of those features that requires you to sacrifice a chicken before it works?

Our last feedback comes from reader Rick Matthews, who also pointed out the Mozilla option and added, "Some major vendors seem clueless to the large number of users they miss by insisting on loading images from remote servers. Buy.com regularly sends e-mail ads with no useful content other than that in remote images. They offer no alternative for customers wanting their ads. There is no option for non-HTML e-mail, and there is not even an option to click through for a version of the ad on their Web site. At one time, I bought regularly from buy.com, but I have not made a single purchase since they started this practice. What are they thinking?"

An interesting point. We doubt that a professional marketing organization would blindly use a technique without knowing if it was effective. Makes you wonder if they are using some variation on the remote image-loading technique to measure on-line user behavior.

Suspensions to gearhead@gibbs.com.



CoolTools

Quick takes
on high-tech toys
By Keith Shaw

The scoop: GPS Navigator, from palmOne, about \$300.

What it does: The GPS Navigator is a small, paperweight-sized, portable device that can connect to GPS satellites to provide location information for driving directions. The device also has a Bluetooth radio to wirelessly connect to a palmOne Tungsten T3 or Zire 72 (the newer handhelds with Bluetooth radios), and includes mapping software from TomTom.

The entire package comes with vehicle-mounting equipment, power chargers (including a cigarette lighter adapter) and cables; and eight CDs of maps that cover the U.S. and Canada. Maps are downloaded and stored on a Secure Digital card, not on the palmOne device itself.

The TomTom software provides turn-by-turn driving directions to get you to your destination and voice navigation commands, such as "In 800 yards, turn left." If you miss your turn, the software will calculate a new route. You also can have the software find an alternative route, should you run into a traffic jam, construction or if you just don't like the route the software has chosen. When you begin driving, the software will use the GPS connection from the Navigator device to determine your location and calculate your speed. On the screen, the software provides a 3-D view of your current location, or you can switch to a more traditional top-down view (the 2-D map view).

Why it's cool: When the entire system works, the GPS Navigator and TomTom software will make sure you don't get lost when trying to find an address or location. The 3-D

GPS Navigator gets lost in configuration

view gives a different perspective and lets you see in general where your next turn will be, and the voice directions are given enough in advance to make sure you don't miss that turn. We love how the system can recalculate your route in a moment's notice if you do miss a turn. The vehicle-mounting cradle connects to a dashboard via a suction cup, which means we didn't have to permanently install the device in our car. And getting eight full CDs of maps that cover the entire U.S. and Canada almost makes it worth the price.

Why it's not: We had a lot of trouble configuring the GPS and connecting Bluetooth to the Tungsten T3. After several attempts to turn the device on and off, we called a palmOne product manager, who said the problem was the Bluetooth connection, not the GPS connection. The problem is, there's no indicator that tells you whether you have established a Bluetooth connection with the GPS Navigator. We were told to reset the T3, then re-establish the Bluetooth link to get things started again. We had to do this each time we started a new trip.

We also found that the maps, while useful, were not always accurate. Smaller roads were often missing from the maps, and points of interest, such as the location of a gas station, were often not in the right place (although they were close enough if we were running out of gas and



When palmOne's GPS navigation package works, it can help you find your way. But setting it up can be tricky.

needed to find one). More importantly, the software incorrectly identified the location of our home address, and it wouldn't even let us enter the address for work — we tried entering "118 Turnpike Road" and the software told us we needed to enter a number between 164 and 399, which was farther down the road from our actual location.

You also will need to use the car power chargers because the system will drain the Tungsten T3 in less than two hours if a charger is not connected.

Bottom line: If you make a lot of trips and depend on finding locations quickly, this system can provide a good alternative to buying a more permanent in-

car GPS package.

The portability of the GPS Navigator (you can throw it in your pocket and bring it with you) offers a chance to navigate when you're away from the vehicle.

But for more casual users, the hassle of configuration and the drain on your handheld's battery make this system an expensive (and sometimes frustrating) navigation toy.

Grade:★★★ (out of five)

Shaw can be reached at kshaw@nww.com.



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ON TECHNOLOGY

Beth Schultz

The joy of networking

American novelist Pearl S. Buck, a Nobel laureate for literature, once wrote, "The secret of joy in work is contained in one word — excellence. To know how to do something well is to enjoy it."

Who could disagree? When you've poured your best into a network project, perhaps taken a chance on a newer technology or unusual implementation to improve business operations, you're bound to enjoy in its success. We think it should be shared.

That's why each year we honor readers who show excellence in their work with two awards — the Extended Enterprise Innovator Award and the User Excellence Award.

The Extended Enterprise Innovator Award recognizes organizations that have realized significant gains by creating IP-based electronic ecosystems that connect employees, customers and business partners. In 2003, we honored energy industry giant Halliburton for a sophisticated yet easy-to-use portal that delivers rich technical content, interactive tools, collaborative features and e-commerce functions for customers, suppliers and employees. The system provides such high value that few participants will leave it.

We now are accepting entries for the Extended Enterprise Innovator Award, which will be evaluated on technical sophistication, innovation and business impact. Winning projects will be profiled in our Extended Enterprise Signature Series edition Nov. 15.

The User Excellence Award, now in its 20th year, is an honor bestowed on an organization that demonstrates exceptional use of network technology to empower corporations. Last year's winner, Washington Mutual, grabbed our attention by deploying a massive Multi-protocol Label Switching (MPLS) network that enabled the company's rapid expansion nationwide. One day last August, for example, WaMu opened 32 bank branches in Chicago — the MPLS network, which connects 3,000 locations, never missed a beat. WaMu executives say the network reduced operational costs by 25% in the first year and expect to realize similar gains over the next three.

In judging User Excellence Award entries, we look for projects that use mainstream technologies creatively or that employ newer technologies to solve pressing business problems. We will showcase the winning projects in our Dec. 27 Power Issue, a Signature Series edition.

So add to the joy of a job well done by getting in the running for *Network World's* Extended Enterprise and User Excellence Awards. Nomination forms will be available at www.nwfusion.com, DocFinder: 2633, through Aug. 28.

— Beth Schultz
Editor, Signature Series
bschultz@nww.com

Unwelcome interference

Your story "HomePlug trials hitting the market" (www.nwfusion.com, DocFinder: 2624) does not mention the adverse interference Broadband Powerline (BPL) causes to radio communications in the 1.8-MHz to 80-MHz frequency range. Services disrupted include shortwave broadcasts, medium- and high-frequency two-way radio communications (military, homeland security, marine and ham radio), military land-mobile communications in the 30-MHz to 88-MHz range, and local business and public safety communications in the 29-MHz to 50-MHz range.

In all field trials, interference to various radio services has been observed in every location. In some cases, this interference was documented at more than 1 mile from the test power line.

By FCC definition, BPL is a Part 15 radio service and does not require a license. Under these guidelines, Part 15 devices must not cause any interference to existing licensed users and services, and must accept any interference from existing licensed users and services.

BPL is a great idea — on paper. In the real world, it is wreaking too much havoc in the few trials conducted so far. FCC Chairman Michael Powell's pushing for this service is misguided at best. Powell is a self-described "cheerleader" for the technology. The commission simply does not want to hear the bad news, only the good, about BPL.

Several groups, including the National Telecommunications and Information Administration, AMSAT-North America, Association of Public-Safety Communications Officials International, National Public Safety Telecommunications Council and the American Radio Relay League, have filed comments with the FCC on BPL citing grave concerns

E-mail letters to jdix@nww.com or send them to John Dix, editor in chief, Network World, 118 Turnpike Road, Southborough, MA 01772. Please include phone number and address for verification.

over interference issues.

Yes, I see the need in this country for high-speed/broadband Internet access. Heck, I can only connect at 28.8K bit/sec at my home. But high-speed access that causes electronic interference to so many other existing services is not worth it at any price.

Mark Cobbeldick
Lynchburg, Va.

More proof needed

In her column "Voice and data: Three big myths" (DocFinder: 2625), Johna Till Johnson seeks to disprove the "assumption that voice systems are inherently engineered to greater reliability than data networks," adding, "Want proof? I was in Manhattan on Sept. 11, 2001. Though both the landline and cellular voice networks failed, I was able to send and receive e-mail and instant messages throughout the morning."

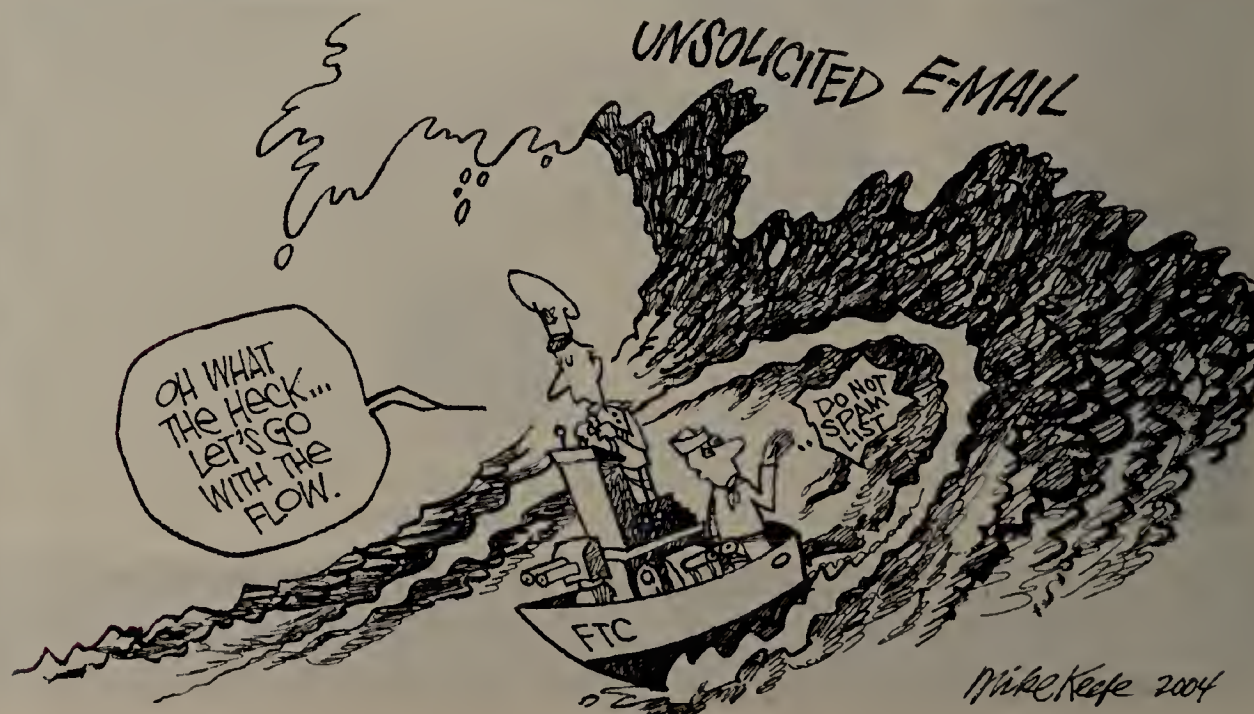
This is only "proof" that data networks are more reliable than voice networks by the measure of, "Which network can send and receive messages when planes crash into two of the tallest buildings in the world?" A valid criterion but highly specific, which most evaluators would agree tells far less than the whole story. Before I dismiss the old assumption, I would have to see how data networks stack up in terms of some of the old standby measures, starting with uptime percentages.

Of course this question is becoming increasingly academic because even voice systems increasingly rely on computers connected to the data network for such things as voice mail retrieval. Which makes one also wonder if the failure experienced with both the landline and wireless voice variants wasn't because of some underlying fault in the data system.

Alan Deger
Boulder, Colo.



More online! www.nwfusion.com Find out what readers are saying about these and other topics. **DocFinder: 2621**





THROUGH CHANNELS

Ken Presti

Recently I showed my new racing bicycle to a friend who's so serious about the sport that he looks at any roadster costing less than \$1,000 with a jaundiced eye. "A little heavy," he commented. I picked up the bike and started doing curls with it as though I were lifting weights. "Not just a bike," I quipped. "It's a complete fitness solution."

Over the years, the word "solution" has been transformed into a marketer's Holy Grail — sometimes with real meaning and sometimes without. Nowhere is this more apparent than in relationships between vendors and value-added resellers, integrators and other members of the indirect channel who sell, deploy and support their products.

Just about all the vendor programs that support these alliances urge partners to approach their customers as an all-encompassing technology provider — leading with that particular vendor's products, of course. Perhaps this approach is linked to the shriveling profit margins associated with point products. In any event, channel partners constantly are encouraged to piece together solutions that include hardware, software, connectivity and support.

This is generally good news to "one-throat-to-choke" advocates who seek to avoid the inevitable finger-pointing that occurs when different parties team up on a "solution." But a certain amount of due diligence is warranted. Not all forms of expertise are created equal, and end users must learn to distinguish between areas of genuine competence and wishful thinking.

Sussing out solution-based selling

Over the years, the word "solution" has been transformed into a marketer's Holy Grail . . .

If you've worked with a particular reseller for an extended time period, you probably know its skills and follow-through capabilities well. If you're about to enter a new area with the company, a basic discussion about the direction of its business and degree of training will probably suffice. Many vendors also bestow some form of a seal of approval when a channel partner develops competency in a new area. This is worth asking about — especially if the new offering represents a significant expansion from the partner's core business.

When working with a channel partner for the first time, it is wise to add the extra step of validating its responses, either through the specific vendors or through checking references with other end-user companies that already have traveled this path. In many cases, end users might also know of individuals in the industry who are not integrators but have sufficient grounding in the given technology to provide a basic sanity check on a channel partner's proposal. If their recommendations are at odds with those of the channel partner, ask the vendor to help arbitrate the conflicting viewpoints.

All things considered, having one channel partner that can meet all of your technology needs — and do so economically — is probably more the exception than the rule. The key is to develop relationships with knowledgeable partners who can admit what they don't know and assemble the necessary outside expertise to fill in the gaps. With such a relationship in place, IT managers can capitalize on this streamlined approach to technology.

Presti is research director of IDC's Network Channels and Alliances service. He can be reached at kpresti@idc.com.



TELECOM CATALYST

Daniel Briere

We take it for granted that there are some fairly clear lines that you don't cross — and if you do, supposedly you'll get into a lot of trouble.

Take identity theft. Say you're Enterprise A with Competitors B, C and D. If an overzealous salesperson for Competitor B were to go to Hotmail.com, set up an account using your vice president of sales' name and identity, and then send out e-mails to your clients stating falsehoods about your products, this clearly would be over the line, illegal and the perpetrator would get in big trouble over it, right?

Unfortunately, it's not as clear-cut as you might think. Take the case of Ron Fitch v. John Doe, now going before the Maine Supreme Court. On Christmas Eve, someone (John Doe) created a Hotmail account in Fitch's name, using Fitch's dead Saint Bernard's name as the password, and sent an e-mail to Fitch's neighbors containing a cartoon lampooning Fitch, his wife and their dead dog. Fitch, understandably upset, traced the e-mail to a Time Warner account using the e-mail header information and sued John Doe, obtaining a subpoena from the court for Time Warner to release John Doe's subscriber information. John Doe, not wanting to embarrass himself, has been spending a ton of money to try to stop the release of his identity. (In the interest of disclosure, Fitch is my father-in-law. For the full story, go to www.nwfusion.com, DocFinder: 2622.)

It turns out one of the major arguments John Doe's attorneys are making is that much of the hoopla we've heard out of Washington about going after spammers and protecting people's identity and the like has been geared toward criminal cases. The case law regarding the civil-case use of subpoenas and court orders to release subscriber information is less clear.

Moreover, trying to get the police interested in a situation like Fitch's — which the Portland police thus far have deemed a neighborhood spat not worth their attention — is almost impossible. It

So I stole your identity . . . sue me!

takes a lot of money — damages, that is — to get the police involved these days. So the burden becomes one of having to sell your criminal case to the police to get a sense of justice, or having to deal with a far less specific body of civil law.

I'm sure there are a lot of lawyers out there who will chime in with, "Well, what about Schintler v. Boogymen in Nebraska," or something like that. Sure, there are probably isolated cases here and there, but what's been clear in the coverage of the Fitch case is that: 1) it's hard to get the police excited about your case, even when someone clearly has committed a crime against you, when the damages are hard to prove and more likely to involve pride than the pocketbook, and 2) it's harder to make decent progress in civil cases lacking clear support in the legislation and case law.

Take our example of Enterprise A. The hypothetical e-mail could be set up to look like a standard notification from your company and could say totally factual things — exposing the pitfalls and downsides of your product, in an "alert" to customers. Clearly, this is something of which Competitor B could take advantage and turn into sales.

But how do you prove that? And even if you prove it, do you have the money and time to do something about it? (Fitch might have to wait a year just to find out if the Maine Supreme Court will order the release of John Doe's identity.) And lacking clear-cut major revenue impact, will you be able to get the police interested in your case?

Unfortunately, the law does not appear to be on our side. We should not have to rely on proving to a police investigator that situations such as this could be really damaging. Washington needs to reaffirm the intent of its legislation to be binding in civil and criminal cases, and put some real legal teeth into civil statutes to allow discovery of identities in cases where such flagrant abuse has occurred.

Briere is CEO of TeleChoice, a market strategy consultancy for the telecommunications industry. He can be reached at telecom_catalyst@telechoice.com.

Unfortunately, the law does not appear to be on our side.

IM Has Invaded the Enterprise - R U Concerned?

Instant Messaging is now an enterprise-wide business requirement. According to IDC, 60-70% of all enterprises, large or small, cited productivity improvements, collaboration and best practices as the primary business drivers to adopt IM across all their employees. IM has grown beyond use by rogue enthusiasts into an enterprise-wide communication and collaboration tool. IDC predicts that business users will account for nearly half of the 506 million IM users expected online by 2006.

Because the adoption of IM in the enterprise accelerated through public IM networks like AOL, MSN and Yahoo, IM usage has grown under the radar, unmonitored and uncontrolled. As an enterprise-class solution, IM must be managed and controlled as a mission critical service, in much the same way as dial tone, e-mail, and Web access. IT organizations have to balance IM's inherent productivity enhancements with secure management that ensures alignment with company policy for security, corporate accountability and regulatory compliance.

It can be daunting to deploy an enterprise-wide Instant Messaging solution to address the inherent security and legal risks associated with IM. As an IT executive charged with meeting the company's messaging requirements, where should you start? How can you balance the short-term need to get IM under control with longer-term objectives of building a scalable, reliable, enterprise-class IM infrastructure?

As IM adoption continues to explode, the pressure is on IT organizations to secure and manage it.

There are 6 key factors critical to deploying an enterprise IM infrastructure:

1. Certified Management for all IM networks

Employees need to communicate with customers, partners and vendors who use a variety of different IM networks. Even after the IT organization deploys an enterprise IM system internally, such as Microsoft Office Live Communications Server or IBM Lotus Instant Messaging and Web Conferencing (formerly Lotus Sametime), communication across the firewall requires use of the public networks. Enterprise-class IM management supports IM on multiple platforms, including AOL, MSN, Yahoo and IBM, so employees can reach key business contacts regardless of network.

2. Best-of-breed Security

Unfortunately, with the most pervasive, fastest growing communication medium comes the most covert viral threat. IM is a conduit in and out of an organization. The IT department has to guarantee security, compliance and policy management through centralized deployment and management, for both internal and external IM usage. Enterprise-class IM management solutions protect the organization with comprehensive policy enforcement to stop viruses, block SPIM (Spam over IM), filter IM content and

control file transfer. They allow usage to be controlled for individuals and groups. Identity management restricts the use of the organization's domain name to authorized employees, mapping IM identities to corporate names and preventing identity theft.

3. Legal Risk and Corporate Governance

For many businesses, the need to comply with legal and corporate accountability standards like SEC, NASD, and HIPAA is driving the search for an enterprise-class IM management solution. The problem is about more than logging and archiving. Even in industries that are not bound to regulatory compliance, corporate governance means that companies must conform to legal and ethical restrictions while conducting business. The organization's corporate communications policies must be applied to IM, which faces the same retention requirements as e-mail. An enterprise-class IM management solution allows all IM to be tracked across public, hosted and enterprise IM networks.

4. Global Enterprise-class Scalability and Reliability

Enterprise IM management has to be highly available, transparent to users and easy to administer. For the long term, IT departments need an IM management solution that addresses increases in user numbers and traffic. In large-scale rollouts, where any amount of desktop configuration is unwieldy and expensive, deployments have to be done without touching the desktop. Reliability and fault-tolerance are requirements for large global IM deployments. Scalability and performance were critical when 80,000 seats were deployed at the largest investment bank and brokerage firm.

5. Seamless Integration into Complex IT Environments

IT organizations need a solution that's cost-effective to deploy, and that integrates seamlessly into the complex enterprise IT environment. Enterprise-class IM management has the flexibility to integrate with best-of-breed or corporate-standard security products. The IM management tool captures and delivers content to third party solutions for e-mail archiving systems, anti-virus and anti-spam solutions, and content filtering solutions. For IM deployment and maintenance, the enterprise needs to be able to leverage existing LDAP directories, to identify and define users and groups, and to create IM management policies, which are then easy to administer. Automatic directory update capability assures the IM logging stays in synch with changes. These integration points enable IM to be run as an enterprise-level service without requiring significant new IT investment.

6. Infrastructure to Extend IM into the Enterprise

Organizations looking to integrate instant messaging into every aspect of the business need to consider an enterprise-class IM management solution. Imagine a future where IM is ubiquitous, integrated into most of the enterprise's business applications. IM's characteristics, including presence awareness, immediacy, multi-party communication and anytime-anywhere access combine with business applications to create an opportunity for real-time advantage. By combining

the awareness of available colleagues with the ability to collaborate in place, using business knowledge, IM can become the backbone of a new breed of business applications and processes that produce additional benefits for the enterprise.

IMlogic is pleased to offer a number of resources to help you make educated decisions on the right IM strategy for your company. Go to www.imlogic.com/networkworld.htm to access these FREE downloads.

As IM adoption continues to explode, the pressure is on IT organizations to secure and manage it. By putting an enterprise-class infrastructure in place, the enterprise is poised to take advantage of the next generation of IM-powered applications. With enterprise-class IM infrastructure, IT administrators are readying the organization for a future in which IM is integrated into every part of the business process, increasing responsiveness and driving revenue.

IMlogic's Solution for Enterprise IM

IMlogic addresses these needs for over 400,000 enterprise users with the industry-leading IM management solution, IM Manager.

IMlogic IM Manager brings centralized control, reporting, and security to traditionally unmonitored and uncontrolled enterprise IM usage. Its extensible architecture enables companies to leverage existing security infrastructures, or incorporate best-of-breed and corporate-standard solutions in order to accelerate deployment time and minimize risk. IM Manager is powered by the IMpulse™ engine, patent-pending core technology developed in partnership with IM technology leaders that ensures the scalability, reliability, and performance of mission-critical IM traffic. Recognized as the most widely deployed IM Management system today, the IMpulse™ engine is the most trusted technology for enterprise IM usage available in the market.

All IM management solutions are NOT created equal. IMlogic is the only company offering long-term, enterprise-class IM infrastructure solutions. IMlogic's product suite provides the most comprehensive, easily deployed solution for enterprise IM management and application integration. For more information and free downloads, including an IM detection tool and a white paper on IM Security, go to www.imlogic.com/networkworld.htm or email us at info@imlogic.com.

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For more information and FREE downloads, including an IM detection tool and a white paper on IM Security, go to www.imlogic.com/networkworld.htm or email us at info@imlogic.com.



If you can't beat IM

oin IM

Like it or not, instant messaging has become a valid form of communication within the enterprise. The real challenge is to control IM to make sure it doesn't sting you or your company. Network World has got you covered, with test results and more options on finding tools that can help you out.

IM SECURITY RISKS

Like every new technology, it comes with its own set of risks. Learn about the top five threats to your IM platform. **Page 34**

CLEAR CHOICE TEST

Akonix's L7 Enterprise tops the field in a strong group of IM monitoring and management tools, all designed to help control the IM universe. **Page 36**

ONLINE BUYER'S GUIDE

Check out our latest online buyer's guide on the IM management space. Choose what categories you want to separate the products by, or get complete details on nine products from Akonix, Blue Coat Systems, DYS Analytics, FaceTime, IM-Age, IMlogic and Zone Labs. Or check out our other online buyer's guides, including:

Collaborative workspaces: 17 products from 14 companies, including Microsoft, IBM Lotus and Documentum.

Webconferencing: 27 products from 23 companies, including WebEx, IBM Lotus, First Virtual and Santa Cruz Networks.

Anti-spam: The largest anti-spam buyer's guide ever produced, with 115 products from more than 90 companies.

Find these buyer's guides at
www.nwfusion.com, DocFinder: 2643

IM is here to stay; companies need to find ways to control it.

■ BY CHRISTINE PEREY, NETWORK WORLD LAB ALLIANCE

Instant messaging was never invited to the communications party in the enterprise — it crashed the party, and now IT managers must find a way to control IM before the dining room table gets smashed.

Radicati Group recently estimated that IM is being used in 85% of all companies worldwide. The total number of unsecured public IM service users (the AOLs, Yahoos and MSN Messengers of the world) in the workplace are expected to exceed 125 million by mid-2004, up from 100 million users nine months ago, and five times the number of users from 2002.

The meteoric rise of public IM users is a direct result of the strong perceived benefits on the part of IM users.

Finding the status of a co-worker or friend via a persistent Internet or intranet connection, being able to send a short text message in real time to anyone "alive" on the server, and the lack of friction many users face when installing and adopting the public IM service all contribute to IM's success. Technology built into Windows XP (Windows Messenger) does not require technical support or training. If an employee's operating system does not already include the Messenger client (or another service is desired), those with Internet access and the knowledge of installing an application on a PC are minutes away from being up and running.

But the risks of leaving IM unmanaged in corporations are well documented. According to a Radicati study, threats to enterprise security (including viruses and worms introduced via IM), the need to comply with industry or federal regulations, and concerns about the inappropriate release of confidential data (see "Top 5 IM security risks," page 34) will cause nearly 20% of all IT managers to take steps to

Eight benefits of IM

To justify the use of IM in an enterprise, Matt Cain of Meta Group suggests the following:

- 1. Phone displacement:** For geographically dispersed environments, IM can be used as a substitute for short-duration phone calls, eliminating expenses.
- 2. Back channel:** IM is used to augment other communication channels. For example, if team members are talking with an external client on the phone, IM can be used between internal team members to plot strategy or to help clarify points.
- 3. Immediacy:** IM can help cut through desktop clutter, resulting in immediate responses. For time-sensitive business processes, such as customer service, crisis management and problem resolution, IM is key.
- 4. Emergencies:** IM is a vehicle for rapidly disseminating critical information to the entire company, groups or individuals in cases of natural catastrophes, health issues, network outages or schedule changes. Sometimes the IM network will remain up when phone and e-mail systems are down.
- 5. Bonding:** IM can provide a link among dispersed workgroups. Ad hoc contacts are made more productive by the ability to quickly add other team members to the workgroup.
- 6. Find-me service:** IM-to-Short Messaging Service gateway services can be used to route instant messages to cell phones.
- 7. Experts on demand:** IM systems can help users quickly reach out to experts for instant consultations, or for surveying multiple experts at once.
- 8. Self-service:** Person-to-machine IM services, which let users query human resource virtual agents for information on benefits or enrollment, or which let sales staff gain access to data, can help expedite business cycles.

block employees from using public IM services when they are registered with the enterprise identity management infrastructure.

Yet completely shutting down public IM usage likely will elicit phone calls from avid users within hours, if not minutes. Many highly productive employees rely on their buddy lists to accelerate workflow and manage mission-critical processes. When their lifeline to partners and team members worldwide gets closed down, they frequently don't want to return to old communications and messaging technologies, such as the telephone, fax and e-mail.

In a Meta Group research report titled "Justifying instant messaging investments," Matt Cain writes that IT managers lobbying management for either an enterprise IM platform, or IM monitoring and management systems that can enforce public policies around public IM (see Clear Choice Test, page 36) should develop their case on as many as eight points (see "Eight benefits of IM," page 33).

Reduce e-mail and phone tag

Two key points that can help justify an investment in IM are the telephone infrastructure displacement and the reduced growth of e-mail infrastructure.

"Presence information can be used to eliminate telephone tag by enabling users to determine when others are in the office and available," Cain's report says. His study estimates more than 60% of business phone calls end up in voice mail. "Pulling together team members for a quick conference call via IM can be far simpler than arranging for a phone conference, and far less expensive if multiple continents are involved," his report says. According to Meta, IBM saw a 4% reduction in phone expenses because of an increased use of IM. IBM generates up to 3.5 million messages per day from its internal operations, Meta says.

Similarly, IM usage is believed to lighten the load on the e-mail infrastructure at some companies, especially in cases where file transfers over IM avoid passing through the e-mail server. Although the network bandwidth usage remains the same, transferring over IM helps reduce storage and back-up costs on the e-mail server.

The softer side

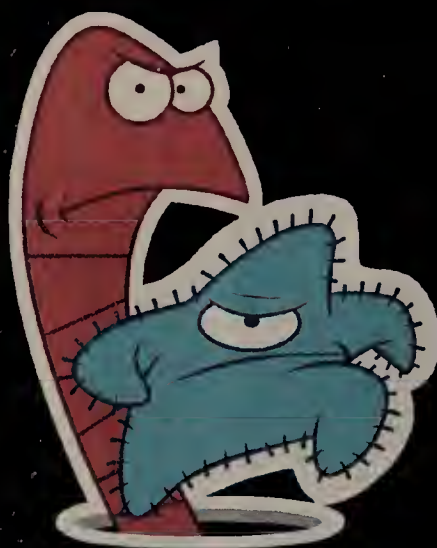
It is more difficult to quantify the bottom-line benefits of employees having immediate answers to questions (access to experts on demand) and a closer and more collaborative relationship with peers and superiors. By some analyst estimates, the changes to workflow made possible by enterprise IM systems is equal to or more important than the dollar savings, because new workflows can reduce the need for administrative personnel, improve morale among employees who feel more connected to remote teams, and accelerate the speed at which emergencies are addressed.

It might be difficult to defend rigorous ROI calculations for IM investments, in part because the communications needs of employees vary so widely. Employees with external communications responsibilities will need greater support in using public IM services, while employees who communicate primarily with other employees might benefit more from an internally deployed and managed enterprise IM platform.

It's clear that IM, the unruly and uninvited guest, is a risk to the status quo in enterprise communications. Like it or not, the party crasher is getting stronger and more manageable. By investing moderately in monitoring and management systems that will consistently and openly build and convey usage guidelines, and enforce these policies automatically, IT organizations can more easily focus their attentions on the positive aspects of the new real-time communications party.

Perey is president of Perey Research & Consulting, a firm dedicated to the expansion of the rich media communications market. She can be reached at cperey@perey.com.

Top 5 IM security risks



1. Viruses and worms over IM.

Out of the top 50 viruses and worms over the past six months, 19 of them used peer-to-peer or IM applications. Most viruses are sent through file transfers, which bypass traditional gateway and anti-virus security. Public IM clients also have publicized vulnerabilities, where flaws such as buffer overflows and boundary condition errors have been exploited to spread viruses, worms or denial-of-service attacks.

2. Identity theft/authentication spoofing.

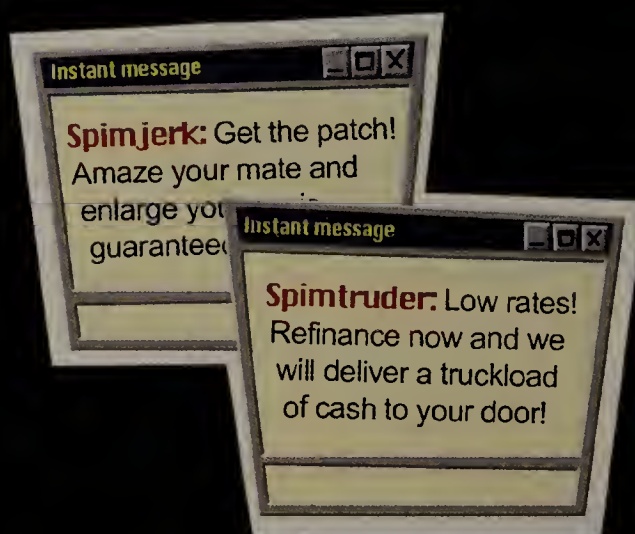
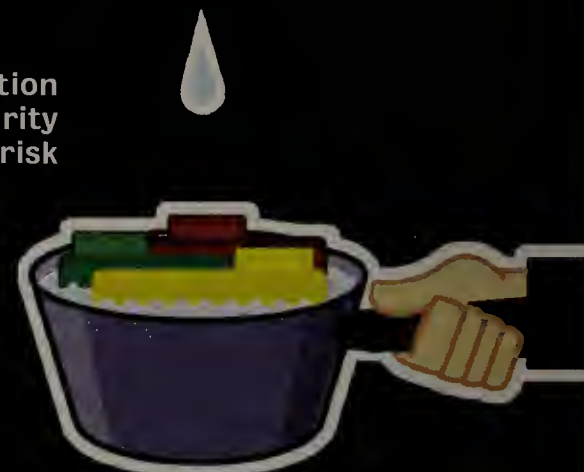
Public IM systems let individuals create anonymous identities, which do not map to e-mail addresses. IDs can be created even if the IDs and domains are not owned by that individual ("billgates" or "johnchambers," for example). Spoofing creates risk, as these IDs can be used maliciously, outside the control of the IT security department.

3. Firewall tunneling.

IM clients find ways to tunnel through firewalls, creating risk. Most IM services come through well-publicized ports (5190 for AOL Instant Messenger, 1863 for MSN and 5050 for Yahoo), but IM clients also can exploit any open port on the firewall, including those used by other applications (such as Port 80 for Web and HTTP traffic). Some clients also can connect via peer-to-peer connections or establish connections on randomly negotiated ports.

4. Data security leaks.

Unmonitored content leaving the corporation without the knowledge of the information security department introduces legal and competitive risk (such as a CFO sending a confidential spreadsheet via IM without an audit trail). File transfer over IM is a powerful way to send information beyond the tracing capabilities of the IT department. The lack of content filtering and archiving makes it difficult for IT to discover potential breaches of policy or to hold individuals accountable.



5. Spim.

IMlogic says that 5% to 7% of IM traffic today is spim (instant messaging spam). Spim can be more disruptive than e-mail spam, as it is more intrusive (the pop-up spim interrupts the user) and generally of a more sexually offensive nature (leading to human resources and legal risk).

CASE STUDY: RPU Gets a Handle on IM

Company: Rochester Public Utilities (RPU),
Rochester, Minn.

Industry: Utilities (municipal electric and water)

Problem: Concern with instant messaging security and customer self service integration

Solution: Akonix L7 Enterprise for IM compliance, management and security

Result: RPU users maintain the benefits of IM communications with customers and partners, without compromising regulatory compliance and network security

Rochester Public Utilities continually investigates innovative technologies to help customers realize the best value from the services they receive. As a public utility providing electric and water service to tens of thousands of customers, RPU doesn't take kindly to anything that might disrupt the reliability of its operations. So when it detected some of its 250 network users were employing public instant messaging (IM) services, it decided to take control of the situation before it got out of hand.

From a business perspective, RPU recognized that IM served a valuable communications function, so it didn't want to try and ban use. Rather, RPU took a proactive approach by defining the rules under which employees could use IM, while adhering to required logging and security policies.

To enforce those rules, RPU opted for an IM management solution from Akonix. Specifically, the Akonix L7 Enterprise solution allowed RPU to:

- Detect and manage all the major public IM protocols
- Apply usage policies to individuals or groups of users
- Log, archive and review IM communications as required by industry regulations
- Secure internal messages within the enterprise network
- Stop conversations, messages and attachments that violate corporate policy or place the network at risk
- Block all unauthorized IM use and all peer-to-peer file-sharing
- Integrate public IM services with its internal enterprise IM solution, Microsoft Live Communications Server, for unified compliance archiving and reporting

"Not only has Akonix L7 Enterprise given RPU peace of mind in regards to securing our network and making sure we are in full compliance, but culturally IM use is becoming widely accepted," says Matt Bushman, IT analyst at RPU. "Employees are seeing huge productivity gains by being able to easily and immediately communicate with both internal and external contacts."

Managing IM in the Enterprise

Akonix offers enterprises a simple solution to a growing problem: Controlling the use of instant messaging.

NOT SO LONG AGO, instant messaging (IM) belonged almost exclusively to the youngest generation of Internet users, who used it to communicate with friends. But the technology has quickly expanded to find an important place in the business world. In fact, the research firm Giga Information Group has predicted that workplace IM usage will exceed email use by 2006.

Today, more than 74% of IM use within company walls comes from employees using networks like Yahoo! Messenger, America Online's Instant Messenger (AIM) and Microsoft's MSN Messenger, according to Nemertes Research. It's easy to understand why; these IM networks are free, easy to use and more than a little contagious.

Corporate IM users quickly fall in love with the ability to communicate *instantly*, internally or externally. By contacting customers, partners and remote employees in real-time, users can improve collaboration, reduce telecom costs and eliminate the delays caused by unanswered voice mail and email.

Unfortunately, unmanaged IM use presents IT and security staff with a new problem. Since it bypasses established compliance, security and corporate policy controls, IM can introduce viruses, worms and other malicious content onto the corporate network. Similarly, corporate IM users can easily expose confidential customer data, intellectual property and proprietary company information.

In many corporations, IM use may even give rise to violations of specific regulations, including Securities and Exchange Commission (SEC) rules, Sarbanes-Oxley requirements and Health Insurance Portability and Accountability Act (HIPAA) regulations.

Given these serious issues, organizations are faced with a challenge: How to maintain employee access to IM without being left vulnerable to security threats and compliance violations.

Take Control, Expand the Benefits

As with other new technologies, such as email and Web access in the 1990s, companies need to implement and enforce corporate security and usage policies in order to successfully and safely embrace IM as a strategic business communications application.

First, corporate IT must gain control of workplace IM use: identify users, monitor and log activity, apply corporate policies and close security loopholes. Once IM use is subject to company policy, complies with regulations and has appropriate security protections, IM's benefits to the business expand rapidly.

Although IM use may have started in small departmental pockets, once it is officially sanctioned, companies typically find that IM's advantages quickly spread throughout the organization. On the horizon are new ways to leverage the power of IM and

"presence" data within corporate applications and IT infrastructures that go well beyond person-to-person communications.

Akonix Systems, Inc., based in San Diego, Calif., offers the leading enterprise IM management solution, providing the means to get control of IM with enterprise-class compliance, security and management. The company's flagship software product, Akonix L7 Enterprise, deploys within the corporate network and acts as a proxy for all IM traffic; immediately, all IM use can be monitored and archived, authenticated with corporate credentials, and subjected to security, confidentiality and other corporate policies. Akonix L7 Enterprise supports all major IM systems, including AIM, MSN Messenger, Yahoo! Messenger, ICQ, Reuters Messaging, IBM/Lotus Sametime, Microsoft Live Communications Server and Jabber, providing a single point for IM policy and compliance management.

Akonix L7 Enterprise is easy to implement, requires no adjustments to client machines or user behavior, and scales to support tens of thousands of users. Akonix's patent-pending real-time architecture and unique industry partnerships ensure support for even more advanced IM integration as the market develops.

In most organizations, hundreds or even thousands of employees are already using IM for business communications. Unfortunately, such unmanaged use may be putting their organizations at risk. By creating proper security, compliance and usage policies, and enforcing them through a proven management system, companies can move from ignoring or fearing IM to embracing it as a new weapon for competitive advantage, productivity and cost reduction.



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CLEAR CHOICE



TEST

IM management tools

Taking the mess out of instant messaging

■ BY CHRISTINE PEREY AND TRAVIS BERKLEY, NETWORK WORLD LAB ALLIANCE

Instant messaging has established a foothold in corporations. It's easier and faster to check an IM client to see if someone is online and shoot off a quick question than to send an e-mail and wait for a response. But the unanswered question is how companies should manage the security, liability and productivity risks of IM and ensure compliance with federal and corporate policies, while supporting this maturing avenue for real-time or just-in-time information exchange.

While major corporate IM platforms address monitoring and management, a lot of IM usage in business comes from the three public IM services: AOL Instant Messenger, Yahoo Messenger and Microsoft MSN Messenger. A new set of IM management products have arrived to address the monitoring and management of IM, whether it's an enterprise platform or a public service.

We took a close look at four very good products that can help network managers improve control and reduce potential risks of IM on a corporate network. We looked at Akonix's L7 Enterprise, FaceTime Communications' IM Auditor, IM-Age Software's IM Policy Manager and IMlogic's IM Manager. Using these products, a business can gain control over how IM is being used without having to

do a "forklift upgrade" to their IM system.

All the products we tested do the basics very well, and will meet many enterprise needs. The products log traffic, apply required policies and forward messages for delivery, if appropriate. They all were very adept at the most basic function of logging traffic into a database for later review. This core function is treated so straightforwardly by all four products that it is almost mundane.

Each product also offers unique features that might make it a good fit for your enterprise network. All four products are mature enough for an enterprise deployment.

That said, we award the Clear Choice Award to Akonix's L7 Enterprise for offering a little more. From the extra details of its policy management, to the ability to

automatically run and deliver customized reports, Akonix came out ahead of the other platforms.

A fine-toothed comb

Each system we tested offers administrators a complete set of policies and configurations, immediately available upon installation. While this is a great start, we found that L7 Enterprise goes a step further by offering customization of specific users groups. With L7 Enterprise an administrator can create detailed rules and policies. This difference is most noticeable in managing file transfers. While the policies in the other three products amount to yes/no propositions, Akonix lets administrators govern file transfers by type, size or time of day. For example, with the other three products

you would be hard-pressed to create a single policy rule to allow only the marketing group to send PDFs and JPEGs between 8 a.m. and 5 p.m.

Akonix also included the ability to apply these rules based on IP address, IM handle and other standard user identity management systems. This is particularly useful if you have roaming users with laptops. Their credentials and screen names won't change, but there might be times when you want to add restrictions (such as when they are connected through a VPN).

The other three products also offer solid policy management. For example, IMlogic has a default rule set that is globally applied. System administrators then can create user groups to which they can apply different settings. The file

Net Results

L7 Enterprise

OVERALL RATING
4.5

Company: Akonix, www.akonix.com.

Cost: \$3,850 for 50 users; additional

costs for Enforcer and Compliance Manager.

Pros: Robust and flexible policy management system, plug-in architecture, support for multiple operating systems, directory services vendors and IM platforms; anti-virus engine tightly integrated into package.

Cons: Complex application could require instruction, time to set up correctly; no choice in anti-virus vendor.

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IM Auditor, Guardian and RTG500

OVERALL RATING
3.8

Company: FaceTime Communications, www.facetime.com. **Cost:** IM Auditor: \$25,000 for 500 users; IM Guardian: starts at \$2,500; RTG500: starts at \$5,000. **Pros:** Easy to use, intuitive Web interface; DMZ/border product available as software (Guardian) or hardened Linux appliance (RTG500); can create separate reviewers with limited scope for group management; flexibility in anti-virus engine. **Cons:** Policies lack detail; management of anti-virus not integrated into interface, cannot save or schedule reports.

IM Policy Manager

OVERALL RATING
3.8

Company: IM-Age, www.im-age.com.

Cost: \$2,000 per year for Server Console (not required for client install only, but used for management and data storage); \$15 per user, per year; data hosting also \$15 per user, per year. **Pros:** Combination gateway and optional client application allows monitoring by users not on enterprise network; only system tested that can encrypt IM sessions and file transfers.

Cons: Installing client requires access to all employee computers; lacks integrated anti-virus and spam control systems.

IM Manager 6.0

OVERALL RATING
3.8

Company: IMlogic, www.imlogic.com.

Cost: \$2,500 for 100 users. **Pros:** Comprehensive offering, including gateways between IM services for multi-IM environments and federation between corporations; easy installation and management via Web interface; relationships with all IM industry players assures maintenance of control as IM systems evolve. **Cons:** Lack of fine detail in policy control, cannot save or schedule reports.

The breakdown

	Akonix	FaceTime	IM-Age	IMlogic
Policy control and granularity 30%	5	4	3.5	4
Logging/archiving/reporting 30%	4.5	3.5	4	3.5
Installation 15%	4	4	4	4
User experience 10%	4	4	4	4
Directory integration 5%	5	4	1	4
Non-IM authentication 5%	4	4	5	4
Unique features 5%	4	3	5	3
TOTAL SCORE	4.5	3.8	3.8	3.8

Rating Key: 5: Exceptional; 4: Very good; 3: Average; 2: Below average; 1: Consistently subpar

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transfer policy is yes/no but can be applied on a group-by-group basis. Likewise, you can create a different list of words and phrases to block different groups or departments. You also can customize your disclaimer text for each group. For content filtering, lists of words, phrases or URLs can be created to trigger additional actions (alerts to the administrator, for example).

The message can be blocked, although no differentiation is made between inbound and outbound. The system can notify the sender of an infraction and send an e-mail to system administrators or make an entry into the Windows event log. These filtering rules can be applied to specific groups, universally or individually per user.

FaceTime's IM Auditor boasts similar capabilities. A set of global permissions is applied by default until an administrator creates groups to further customize the permissions. Again, file transfer permissions are yes/no, and can be applied to each group differently. One interesting addition in IM Auditor is a policy for whether the IM clients can use the built-in audio and video features, or play the built-in games. Another interesting difference is that FaceTime separates content-filtering functions from system-administration functions and makes them part of the global reviewer's functions. A global reviewer can create words and phrases to watch for, and specify a group or groups to which a new rule is applied. The policy can include whether a message should be blocked inbound and/or outbound, and whether someone should be alerted by e-mail when an infraction occurs.

IM-Age lets system administrators create customized rule sets for different groups of users. IM-Age calls these configurations, because the rule sets also might include instructions on how the IM-Age client should behave. The word-blocking function groups the words and phrases into categories (such as project codes, sales or foul language) to make it easier to apply to different groups. However, you can use the word-blocking function only when using the IM-Age client, and then only on outbound, encrypted traffic. As with the other products, IM-Age disclaimers and infraction messages are fully customizable on a group-by-group basis.

Putting it together

The initial installations, for the most part, are trivial. FaceTime has further streamlined the process by offering its IM Guardian in a fully integrated network appliance (the RTG500) running hardened Linux. All you do is turn it on, give it an IP address and away it goes, monitor-

Monitoring IM and Web traffic

Stellar Technologies offers its Stellar Internet Monitoring (www.stellarim.com) product as a way for companies to monitor employee Internet usage and policy violations. Stellar IM monitors instant messaging, but it is only a part of the entire system. The system also monitors Web surfing and other HTTP activity.

Although Stellar IM is not designed to manage IM usage or enforce policies, it does log IM sessions conducted on Yahoo, AOL Instant Messenger and MSN, and lets administrators review and search the archives. If an employee breaches a policy, such as sending or receiving a file via IM session, Stellar IM will send an e-mail alert to an administrator.

We set up an account with Stellar's Web-based service. The user portal is attractive and easy to use. The system lets administrators set up an organization account, map users (employees) manually or automatically via IP address. A directory of people is generated based on their logon names used when signing onto their corporate network.

The Stellar IM system we tested is optimized for environments where a software application can sit on a server (shared or dedicated) and sniff traffic as it enters and leaves the network. With the Web-based service and Enterprise edition, the sniffing agents can be distributed at several points in a corporate network to capture information about traffic on different network segments. All agents automatically communicate in real time with the Stellar IM management application via a Secure Sockets Layer tunnel.

The strength of the system is that the management application can be hosted by Stellar, and is accessible to network account owners via the Internet with a standard Web interface. One feature that might interest the business side of your company is the ability to generate a report that shows the amount of corporate resources spent on a particular task (or Web site visited) based on an average hourly wage entered in the calculator.

While it has merits, we would not recommend this for a technologically astute employee base. The architecture can be circumvented easily through a VPN connection. The VPN would then carry Internet traffic using any encryption that is not controlled by central IT, and IM sessions (or any Internet activity) could continue without Stellar technology detection, as it cannot see inside of the encrypted tunnel.

— Christine Perey and Travis Berkley

ing your IM traffic. FaceTime's user interface was exceptionally elegant and easy to use. The other companies we tested say they are not far behind in bringing similar network appliances to the market, but also say that sometimes "just a gateway" is not enough. Savvy users who can find ways to circumvent a central gateway server might find ways to bypass your policies. That is one reason why IM-Age says it feels strongly about using a client, thus enabling IM management regardless of where or how that machine is networked.

We also discovered a lot of smaller products or options that add to the IM monitoring and management big picture. FaceTime offers IM Guardian for monitoring at the edge, and IM Auditor is its policy engine. In addition to the L7 Enterprise server, Akonix adds Rogue Aware, Enforce and Compliance Manager (we did not test these three components).

IMlogic did a good job of keeping the picture simple for buyers — its IM Manager is more of a one-stop offering for IM monitoring, risk management and

policy compliance enforcement. But IMlogic still offers IM Detector (which we did not test) at no additional cost to detect and stop stubborn users who try to circumvent your policies.

Akonix, FaceTime and IMlogic had virtually the same requirements when installing on a Windows platform. We installed them on Windows 2003 Standard Server and loaded Microsoft's SQL Server 2000 Standard Edition on top of it.

IMlogic and FaceTime also use the Internet Information Server components of Windows, and IMlogic also uses the Windows Message Queuing services. Beyond that, each of these three products installed with virtually no problems. IM-Age did require an additional server to install Microsoft's Internet Security and Acceleration server, so there was a little more work upfront. But to offset this, IM-Age includes product installation as part of the purchase price.

Adding encryption

IM-Age seems well designed for companies in which a network manager can install a run-time executable appli-

cation on every client system and in which the mandate is to manage all IM traffic, whether users are attached to a LAN or on a third-party network. The IM-Age client also can be deployed in stealth mode.

Another characteristic that differentiates IM-Age is the encryption of IM traffic. If this is required in your environment, look no further than IM-Age. A 448-bit Rolling Salt Blowfish encryption engine is integrated into the managed clients, offering a significant benefit when users are transmitting sensitive information via IM, whether over a LAN or the Internet.

This encryption also is extended to unmanaged clients through a free, downloadable reader. A URL for the reader is sent to the user across the network as part of the active IM session. The unmanaged user clicks the link to accept the decryption engine download and the key to the local system for the duration of the session. The reader overlays the decrypted text on the IM client, denoting it with a padlock icon to remind the user that the message is encrypted. During testing, we noticed no perceivable slowdowns when encryption was enabled.

Directory assistance

All four systems we tested leveraged existing enterprise directory and user management systems, firewalls and other network and communications administration tools to varying degrees. Akonix and FaceTime had directory integration and synchronization functions that could tie into several directory systems, including Windows Active Directory and Sun ONE Directory. Akonix also synchronizes with Novell's eDirectory, and FaceTime can synchronize with IBM's Lotus Domino. Akonix also can import and synchronize with multiple directories simultaneously.

IMlogic also performed directory import and synchronization. But this is very basic, and limited to generic Lightweight Directory Access Protocol. We found this was every bit as functional as the other vendors' products. But because the system is more generic, a system administrator has to know enough about the local directory service to answer a few questions, such as port and object classes.

Although IM-Age doesn't synchronize directories, it does deal with directory information. It will report a user's credentials, but they are authenticated to a local machine, regardless of the enterprise directory being used. This means system administrators cannot import user accounts ahead of time, but once a user connects to the system, the information is correct.

CLEAR CHOICE



TEST

What about the user?

The four products all did a very good job remaining transparent and running in the background. Whether the products were in use did not change how the IM clients are used or how they function. When infractions occurred, IMs would be sent to the offending user. Blocked file transfers would look to the external sender as if the internal recipient simply declined the transfer. If the internal user attempted a file transfer that was not allowed by policy, an infraction IM would be sent. In the case of IM-Age users running the client, a pop-up window alerted them as soon as they brought up the File selection dialog box.

All the products can customize the messages that are sent back to the offending IM user, whether internal (and managed) or external (unmanaged). This lets the system administrator decide how much detail is appropriate when alerting the user to an infraction. Akonix uses the "toaster" display in MSN to send the infraction notices. The little pop-up window that appears near the system tray becomes the bearer of unpleasant news, rather than an IM.

Reviewing IM archives

To comply with federal or industry rules (or just good housekeeping), it may be necessary to look for content that has been logged by these products. All four products have reviewer functions built in, but the feature sets vary quite a bit.

Akonix uses a Windows program that can create a summary or detailed reports, and charts and graphs. A wizard assists in creating a report to find required data. Customized reports can be saved for later use. Once a report is saved, it can be scheduled to run as needed. The report can be created as a PDF, Crystal Report or HTML, and can be saved to disk or e-mailed from a locally installed MAPI client.

As flexible as the rest of L7 Enterprise is,

Viruses and 'spim'

A challenge for network managers is preventing IM clients from becoming used in virus attacks.

IMlogic and FaceTime provide methods to snap in various anti-virus engines but leave the management separate from IM management. Akonix takes a more integrated approach, including a McAfee virus protection system as part of L7 Enterprise. The integrated method puts the management for the complete system under one interface, but it also means if you are using something else for the rest of the company, you can't use it here. IM-Age did not document for us any methods for adding anti-virus products into its software.

Also becoming more prominent is spam, coined "spim" in the IM arena. FaceTime and IMlogic have functions built into their products that explicitly deal with spim. FaceTime uses a challenge/response method, asking users to send back a configurable phrase before it lets a request be added as a "buddy" to be passed on. IM clients can, of course, be configured to accept messages only from people on a buddy list. But this feature will stop programs that simply try to get on the buddy list of every user it can find. If someone is already on your buddy list and they send you spim, you can just delete them from your list.

IMlogic manages a blacklist of users to block on the three public IM systems. The list can be updated one name at a time, or in bulk using lists. This prevents so-called spimmers from sending IM, even if they manage to get on a user's buddy list.

Akonix also handles spim, but it doesn't have separate functions in L7 Enterprise dedicated to it. Instead, L7 Enterprise includes three default policies for the latest threats (Osama Found, the Bizex worm and the JituxA worm) as a template for how to create new policies as new threats emerge.

With IM-Age, you need to rely on a combination of keyword blocking and overall file blocking to address spim threats. Templates for how to do this are not included, either. But as long as spims have consistent text, effective rules can be created quickly.

— Christine Perey and Travis Berkley

it was a little difficult to search for content on an ad hoc basis, unless it was included as a blocked keyword. Another shortcoming with Akonix is that there are basically two levels, either read-only or full access. However, the reporting tool is very easy to use and generates very attractive reports.

IMlogic's IM Manager is more detailed with reviewer levels, and provides four basic functions — query the logs, edit annotations to conversations, view an

audit trail (essentially a review of the reviewer) and manage keywords. The reviewer in IM Manager can create keywords to watch for, but not block. For example, you might not want to prevent employees from using the phrase "stock split," but you might want to see how it is being used.

Reports cannot be saved or scheduled. But like everything else in IM Manager, the easy-to-use Web interface lets you run reports from anywhere.

FaceTime's IM Auditor is even more detailed. Not only can there be global reviewers, but FaceTime introduces the concept of a group supervisor.

This distinction gives reviewer privileges that are limited in scope, rather than function, to a defined group. For example, you might have separate reviewers for each of the sales, marketing and engineering groups who only can see conversations for each department's users, and another global reviewer, who has access to everything.

IM Auditor also can give end users the ability to search over their own conversations. While IM Auditor doesn't store separate keywords from the blocked list, it does provide the ability to search for ad hoc text.

Much like IM Manager, IM Auditor cannot save or schedule these reports, but its Web-based interface lets you run reports from any browser.

IM-Age offers a Web interface and a Windows application. While the Web-based version allows use from anywhere, the Windows application is easier to use. It provides search capabilities to reviewers and end users, limiting only the scope of what is seen based on authentication. Again, these queries cannot be saved or scheduled.

But the combination of access methods provides good accessibility. One extra and unique feature in IM-Age is the ability to generate an ad hoc query as a raw SQL statement. While this is extremely powerful and flexible, it would almost certainly be too complex for all but the most experienced network managers.

Something for everyone

All the systems we tested were designed to monitor and manage IM traffic, such that companies can permit their employees to use public IM services for business purposes without exposing the company to unnecessary risks, and to ensure compliance with industry, government or corporate guidelines. Akonix's L7 Enterprise offers the best overall package, but FaceTime and IMlogic also have very strong packages, delivering solid performance that won't disappoint. And if you need to encrypt your IM traffic, give IM-Age a look.

Perey is president of Perey Research & Consulting, a firm dedicated to the expansion of the rich media communications market. She can be reached at cperey@perey.com. Berkley is the manager for LAN Support Services at the University of Kansas. He can be reached at berkley@ku.edu.

How We Did It

Each product was installed on an HP ProLiant DL380 G3 server, with two 2.8-GHz Xeon processors, 2G bytes of RAM and a 34G-byte RAID5 disk. Windows 2003 Standard Server was installed to host the application and Microsoft's SQL Server 2000 Standard Edition database.

For IM-Age, a second server was required for Microsoft's Internet Security and Acceleration server. A second HP DL380 was installed with Windows 2000 Server to host ISA Server 2000.

Our tests simulated what most public IM users would be doing with three main public IM clients — MSN, Yahoo and AOL Instant Messenger. To test policy enforcement capabilities, we looked for content management and keyword blocking, as well as file transfer management and control.

We did not test effectiveness of anti-virus features on these systems, because the vendors included in the review (see related story, above) do not manufacture them.

NW Lab Alliance

Perey and Berkley are also members of the Network World Lab Alliance, a cooperative of the premier testers in the network industry, each bringing to bear years of practical experience on every test. For more Lab Alliance information, including what it takes to become a partner, go to www.nwfusion.com/alliance.

Other members: Mandy Address, ArcSec; John Bass, Centennial Networking Labs, North Carolina State University; Jeffrey Fritz, University of California, San Francisco; James Gaskin, Gaskin Computing Services; Greg Goddard, EDS; Thomas Henderson, ExtremeLabs; Miercom, network consultancy and product test center; Barry Nance, independent consultant; David Newman, Network Test; Thomas Powell, PINT; Joel Snyder, Opus One; Rodney Thayer, Canola & Jones.



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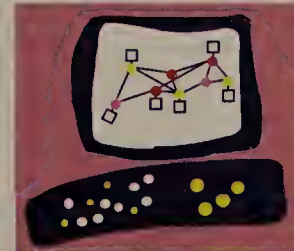
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Leaders can be made

Promising IT managers develop leadership skills with help from Steinbeck, Shakespeare and Hemingway.

■ BY TIM GREENE

When Jeff Geltz was chosen by his boss to attend an IT leadership development class, he wasn't thrilled by the idea.

"It smacked of a remedial program," he says about the Society for Information Management's Regional Leadership Forums (SIM RLF). "I thought it was going to be 'Let's sit around a room and talk about warm and fuzzy concepts.' I was more interested in the next project."

RLF did include what Geltz thought of as warm, fuzzy topics, such as how to establish a healthy balance between work and the rest of life. "I threw it into the bucket that work-life balance is for wimps," says Geltz, now CIO of eLoyalty in Lake Forest, Ill. "After a while I realized there was validity to the conversation.... [Finding a balance] is still challenging to me, because I really love what I do."

SIM launched its RLF leadership development program in 1992 and has about 1,200 graduates. Each class has about 20 students, many of whom start out skeptical like Geltz but learn the value of sharing personal and professional experiences with what quickly becomes a close group of colleagues.

Graduates say the program helps them see themselves more clearly so they can decide which IT career path is right for them. Participants are generally in the 30s, and their employers invest in the \$6,000 program (\$6,500 for non-SIM members) to groom future IT leaders.

"I prided myself as being a fairly technical person," says Paul Amorello, vice president of IT for Pepperidge Farms/Godiva Chocolates in Norwalk, Conn., who attended an RLF in 1996. But he came to realize that even though he was good at solving day-to-day technology issues, he had other non-technical abilities such as humor and perseverance. He chose to use these soft skills as a leader, although it wasn't an easy decision.

"I still want to drill down on stuff," says Amorello, who landed his current job 10 months after taking the SIM course. "It's always difficult to let go, but it comes down to how do you feel comfortable bringing value to an organization? Writing lines of code? Managing programs? Managing people who manage programs?" For him, it's about using personal skills and organizing people. "I pride myself on my ability to pull together a complementary group of folks and build a high-performance team," he says.

RLF is set up to help make this type of decision easier and to develop managers into leaders, says Madeline Weiss, a facilitator who runs classes on the East Coast. The classes run through a checklist of skills that leaders need, including how to motivate people, work well in teams, develop a global perspective, negotiate, build peer networks, set strategic priorities and manage alliances.

Big lessons learned

Leadership training students answer: "What's the most important thing you took away from your classes?"



Paul Amorello Vice president of IT, Pepperidge Farms/Godiva Chocolates

Work-family balance. How fast do you want to move in your career and never see your son in a baseball game?

Focusing on leadership principles is extremely important and key to formation of a team.

Jeff Geltz CIO, eLoyalty



It's brought out the creative side. How can I present a topic so it's not threatening, so people are open to trying a new process or procedure?

Molly Mahoney Senior manager, shared services, Attorneys' Title and Insurance Fund

The RLF courses run for nine months, with members getting time off from work to meet for two days every six weeks, during which they hear advice from guest CIOs, discuss leadership principles based on their work experiences and glean leadership lessons from readings as varied as *The Pearl*, *The Old Man and the Sea* and *King Lear*.

For instance, classes can learn about the smooth transfer of power from reading about Lear, who turned his kingdom over to two daughters who later betrayed him. "He just let go. He didn't do it in any kind of planned and gradual way. You let go after you build trust; you do it gradually," she says.

Molly Mahoney, a current RLF student, says she learned about risk vs. reward from *The Old Man and the Sea*, the tale of an old fisherman who puts his life in danger to catch the big fish, only to have sharks eat it before he can get it to shore. "Was it worth it? If it's a lifelong dream, it may be worth it," says Mahoney, a senior manager of shared services for Attorneys' Title and Insurance Fund in Orlando. In the story, she finds encouragement to take a risk if the goal is important enough.

The book also shows the value of professionalism and persistence, and that a failed project still can have benefits and rewards, says Mike Carleton, CIO of the U.S. General Services Administration in Washington, D.C.

Beyond the reading assignments, Carleton says personal relationships that develop over the nine months of the course are invaluable. "You are sharing experiences within the forum. With six weeks between classes, lots of real-life things happen — mergers and acquisitions, births in families, job changes," he says.

In some cases, family members have died. "You go through these things together. It's personal but not in a way that would get you into trouble. . . . It's so supportive," Mahoney says.

This bond is powerful and lasts long after the classes end. Graduates have been known to meet periodically for dinner to keep helping each other with work and personal problems. "There was a common theme to our experiences. We were all IT people, and that was very important to us," Geltz says. "We were all facing these challenges that you normally don't talk about with anyone else."

Some topics they discuss include developing a service-oriented approach to enterprise architecture, outsourcing and the loss of IT jobs to workers overseas.

Carleton found so much value in RLF that he now facilitates RLF classes on his vacation time. "These classes work not so much because I'm pulling it together but because the right people at the right point in their careers are in the room. They develop a group identity," he says.

Beyond that, participants develop a stronger sense of who they are that can translate into their becoming better leaders. "The kind of individual you are speaks for itself and resonates through your leadership traits. If you don't know who you are and you're not comfortable with yourself, that may show up," Mahoney says.

Carleton says this sense of wholeness is a key element that many IT managers need to achieve before they become effective leaders. "Many folks in IT are self-selected in IT because they like logic, rationality and order, and making things efficient and predictable," he says. "What happens at the top is the opposite — ambiguity, risky decisions based on absence of complete information."

While the course helps bring important leadership issues to light, it is not a one-time fix that lasts for life. "Leadership is extremely important to organizations," Geltz says. "It's not something you can ignore, and it's something you can practice, and it takes a lot of effort to be good at it." ■



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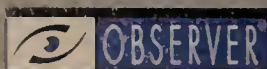
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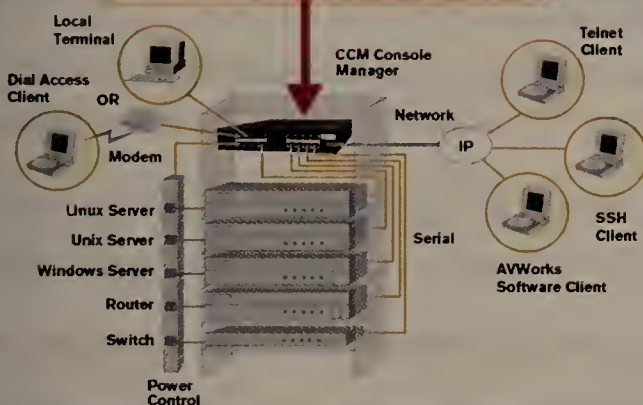
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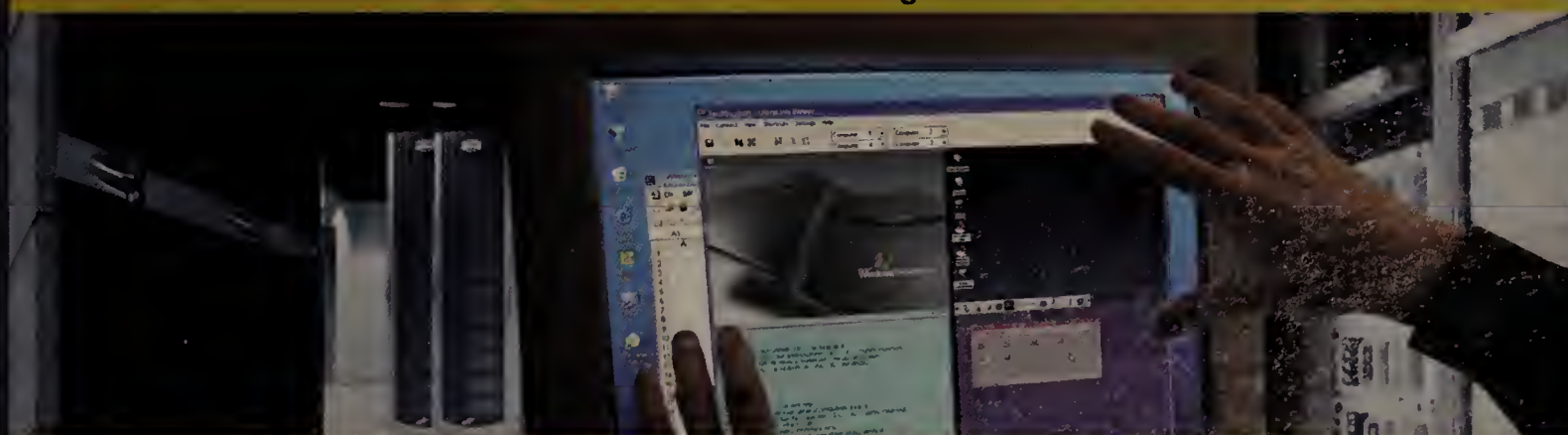
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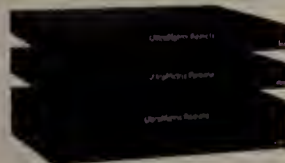
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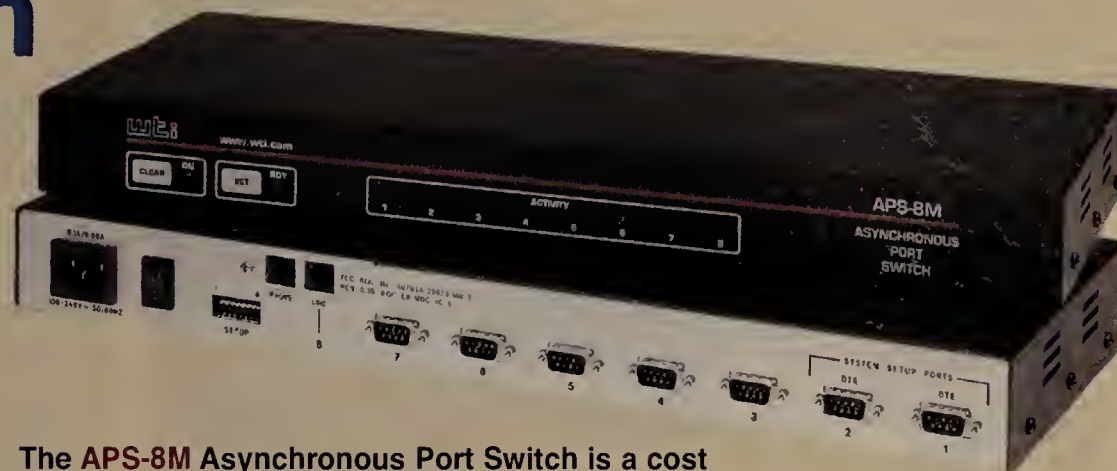
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WAGE: \$101,000/year

Hours worked: Monday-Friday 9:00am-5:00pm

MINIMUM REQUIREMENTS:

Bachelor's degree or equivalent in Computer Science, Engineering (any type), Math, Business Administration or Management (any type) + 4 years exp. in the job offered or 4 years exp. as a Manager, Senior Consultant or Consultant. Related experience must include at least one year of experience with large scale systems development, interface architecture using n-Tier architecture, implementation of FACETS applications, data modeling tools (ER Studio and ERWIN), and object oriented techniques (UML). Knowledge of Financial Services and Healthcare industries required. Employer will regard a foreign degree to be equivalent to a U.S. Bachelor's degree as determined by an accredited credentials evaluation service.

Please send your resume, referencing Job Order Number WEB428255 to the: PA Careerlink, FLC Unit, 235 W. Cheltenham Ave., Philadelphia, PA 19144. EOE.

IT PROFESSIONALS

Senior Consultant

(Glen Mills, PA and other locations throughout the United States). Analyze the operations and supply chain processes of clients in the Banking industry, and develop strategies to reduce costs in a number of back office areas such as statement print and fulfillment, print sourcing, and statement strategy. Make recommendations to upper management regarding the "make versus buy" decision and assess statement standardization possibilities and their impact on the overall cost of statement production (from statement form sourcing to statement printing). Analyze the print strategies of clients and develop recommendations to streamline print purchasing decisions, standardize print materials usage and derive other print related efficiency improvements. Develop and utilize custom financial models, and perform strategic sourcing implementations of a wide spectrum of spend categories such as paper, print, and networking services. Implement and develop Requests for Proposals (RFP's) as the basis for sourcing initiatives covering distinct spend categories such as forms, envelopes, print & fulfillment services and networking services, evaluate the RFP responses in selecting the best all-around solutions based on both cost and conformity to technical and operational specifications, and participate in contract negotiations.

The wage offered is \$80,750/year. The work schedule is Monday-Friday 9:00am-5:00pm. The minimum requirements are as follows: Bachelor's degree in Business Administration, Information Systems, Mathematics, Engineering (any), Computer Science, Economics or Management plus 4 years experience in the job offered or 4 years experience as a Senior Consultant, Consultant, or Financial Analyst. Related experience must also include at least six months of Analysis of cost reduction and supply chain processes in the Banking industry; Print Strategy Analysis and Development; development of custom financial models; implementation of Strategic Sourcing; and implementation and development of Requests for Proposals (RFP).

Please send your resume, referencing Job Order Number WEB428444 to the: PA CareerLink, FLC Unit, 235 W. Cheltenham Avenue, Philadelphia, PA 19144. EOE

IT PROFESSIONALS:

POSITION: Consultant (Glen Mills, Pennsylvania and other locations through the U.S.). Identify functional areas for performance testing of the Membership and Claims systems developed for a major healthcare client. Involved in testing various components including the Trizetto Facet's package, Sybase, Oracle databases, Citrix, Batch Programs, Online Applications, Client letter software, Crystal Reports, IPD (Image Process Design), HIPAA gateway software and E-Facets (web component of Trizetto Facets). Tested Citrix, Online Applications, Client letter software and Databases using Rational Test Manager and Mercury Interactive. Create automated test scripts and define testing scenarios using Rational Tool Suite (Rational Robot and Rational Test Manager) for testing facets and affiliated Extensions. Managed the execution of test scripts across multiple test environments and created virtual users and test scenarios using Rational Test Manager. Responsible for testing systems distributed over a wide geographic area and monitoring systems network performance and server load from various locations.

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MINIMUM REQUIREMENTS:

Bachelor's degree or equivalent in Computer Science, Engineering (any type), Math, Business Administration or Information Systems + 1 year exp. in the job offered or 1 year exp. as a Systems Analyst, Consultant or Senior Consultant. Related experience must include testing of systems distributed over a wide geographic area and defining testing tools using the Rational Testing Tool Suite. Knowledge of the healthcare industry required. Employer will regard a foreign degree to be equivalent to a U.S. Bachelor's degree as determined by an accredited credentials evaluation service.

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Software Engineer: Multiple openings Develop, analyze, maintain software applications using C#, ASP.Net, ASP, XML/XSLT, XPath, Visual Studio, SOL Server, Java, J2EE, HTML, EJB, Javascript, UNIX, Oracle, etc. provide software support, systems re-engineering, database re-design. Salary: \$86,200/yr. Must have Master's Degree or foreign equiv. in Computer Sc./Engineering/Math or equiv. and 2 to 4 yrs of exp. in job offered or related job as Programmer/Systems Analyst/Developer. Send resume to Job Order #2004-211/212/213, P.O. Box 989, Concord, NH 03302-0989.

Programmer/Systems Analyst: Multiple Openings Develop, analyze, maintain software applications using ASP, XML/XSLT, SQL Server, Java, J2EE, HTML, EJB, Javascript, UNIX, Oracle, etc. provide software support, systems re-engineering, database re-design. Salary: \$80,900/yr. Must have Master's Degree or foreign equiv. in Computer Sc./Engineering/Technology or equiv. and 2 yrs of exp. in job offered Send resume to Job Order #2004-333/666, Box 989, Concord, NH 03302-0989.

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SAP Consultants/Software Engineers needed. Sev. positions available for candidates possessing MS/BS or equivalent and/or relevant work experience. Part of the req. rel. exp. must include either 2 yrs. with SAP and ABAP/4 or 3 yrs. with SAP. Mail resume, references and salary requirements to: Seal Consulting, Inc., 101 Fieldcrest Avenue, Raritan Plaza III, Edison, NJ 08837.

Systems Analyst sought by Computer Consulting Co. Bachelor's in Comp Sci or Eng, or foreign equivalent, or a combination of education and work exp. equal to a U.S. Bachelor's degree, plus 2 yrs. exp. inc. ERWin and Teradata are required. Resumes to UPP Business Systems, 3075 Highland Pkwy #730, Downers Grove, IL 60515.



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Software Engineers: Consultants needed for database programming, Internet programming or Systems side programming. Will help clients design, develop, program, and test software implemented on client server technology. The main technologies involved are databases (Oracle), datawarehousing tools (Business objects, Informatica, Cognos), and Internet programming languages (Java, JDBC) or System programming languages (C and C++). Must 5 yrs. exp. as software engineer or in a related field.

Unix Administrators: Consultants also needed for network implementation and administration, system integration, backup, and recoveries, shell scripting and system securities. Knowledge of management of enterprise network storages devices (SAN and NAS), HP and Solaris Serves, Switches, HUBS and in Veritas Neb-Backup Systems. 5 yrs. experience as Unix Systems Administrator or related field.

Req. for both positions: Clients are located in 9 states. Candidates must be willing to move from location to location for assignment durations that varies from 3 mos. to year. Email CV to rtroff@tnscinc.com, Rona Troff, HR Mgr of TechNation Software Consulting, Inc., or mail to 300 N. Dakota Avenue, #505B, Sioux Falls, SD 57104.

Software Engineer

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Web Content Specialist - Candidates will assist in the analysis, design, development, preparation and maintenance on client web sites and applications; Work in conjunction with clients to maintain and update content contained on their web sites; Responsible for maintaining, managing and enhancing search engine rankings through the use of registration and organizational tools; Utilize HTML editing skills in the maintenance of client sites; Utilize file transferring techniques and web site content management skills in the development and maintenance of client sites; Identifying and assessing areas of client sites requiring content updates; Work with clients to identify new opportunities for content creation. High School is required. Applicants must have one year training in Windows, HTML, Microsoft Office and Desktop Publishing. 40 Hrs./wk. (9:00 A.M to 5:00 P.M.); \$35,000.00 per year. Located in Wilmette, Illinois. Applicants must show proof of legal authority to work in the U.S. Send resumes to ILLINOIS DEPARTMENT OF EMPLOYMENT SECURITY, 401 South State Street - 7 North, Chicago, Illinois 60605. Attention: Brenda Kelly. Reference # V-IL 35585-K. AN EMPLOYER PAID AD. NO CALLS - SEND 2 COPIES OF BOTH RESUME AND COVER LETTER.

IT Operations Manager

Java Developer req'd to continue ongoing dvlpmnt & mgmt of CLEC's Workflow & Communication Systems. BS or BE in Communication Engg or Comp Sci & min 3 yrs exp in following skills: Object Oriented Analysis & Design, Java 1.4(J2SE), J2EE 1.4 dvlpmnt (EJB, Servlets, JSP, MVC), Orion Application Server, Dbase Dvlpmnt (MS-SQL, SQL/PL-SOL, MySQL), Advanced HTML, JavaScript & XML, Perl, Unix Scripting. Must have 6 mos-1yr exp with: TCP/IP protocols, Phone & Voicemail systems, Envoy Applications Server, Envoy Studio & Java RMI & CORBA. 9-6, 40hr/wk. Mail resume to: Mr. Fred J. Tips III, Carrera Communications, L.P., 211-A Brooklyn Ave., San Antonio, TX 78215. E-mail resumes to: careers@callcarrera.com.

Senior Consultant

(Glen Mills, PA and other locations throughout the United States). Analyze, design, develop and implement procurement practices and strategic sourcing solutions based on the Frictionless Commerce Sourcing (FCS) or Ariba Enterprise Spend Management (ESM) solution platforms for business clients. Design and develop supporting databases and applications to facilitate data analysis and modeling for use by FCS or ESM systems. Responsible for configuring and loading the technological environment to support the client's procurement and sourcing organization. Perform in-depth analysis of a client's existing sourcing and procurement process to identify complete technological requirements, infrastructure, interfaces, and conversion needs. Responsible for developing the supporting business case to implement new business processes and application redesign, developing components of plan deliverables and applying best practices to the new design.

The wage offered is \$80,421/year. The work schedule is Monday-Friday 9:00am-5:00pm. The minimum requirements are as follows: Bachelor's degree in Computer Science, Engineering (any), Math, Business Administration, Information Technology or Management (any) + 3 years experience in the job offered or 3 years experience as a Consultant, Procurement & Sourcing Technologist, or Application Developer. Related experience must include at least six months of Procurement practices and strategic sourcing solutions including category analysis, industry best practices, technology evaluation, and process redesign; Frictionless Commerce Sourcing (FCM) solution platforms; Ariba Enterprise Spend Management (ESM) solution; and developing and configuring FCS & ESM applications for clients.

Please send your resume, referencing Job Order Number WEB 428031 to the: PA CareerLink, FLC Unit, 235 W Chelton Ave., Philadelphia, PA 19144. EOE.

Director Softw. Develop. - Direct dev./maint. of financ. trans. process syst., direct procur./dev. of softw./hardw. syst.; dev. specs/req'ts; trans. specs/req'ts to design elem./data schema; use oBBApps/MS SQL/C#/ASP.NET & others to impl. syst.; direct syst./user test; direct tech. op.; hardw. config. for host. syst.; direct provision. serv./hardw., SQL data., web host/netwk config.; direct app. growth; supervise Engineers, Master's or equiv. Comp. Sci., Engin., or related req'd. Bachelor's Comp. Sci., Engin., related or acad. equiv. + 5 yrs progress. exp. in softw. engin. subs for Master's req'tmt. Must be proficient in dBBApps/MS SQL/C#/ASP.NET. Competitive salary, 40 hrs/wk, OT as need. Send resume: J. Hayes, FTS, 1 Meca Way, Norcross, GA 30093.

Employment Opportunities!
Friendly Consultants, Inc. has openings for locations nationwide for computer professionals experienced in systems and/or management analysis, systems design, data modeling, networks integration and e-commerce applications with hardware and/or software skills including: Java, Magnax, VB, ASP, Crystal Reports, Oracle, SQL/PL/SQL, Power Builder, COBOL, CICS, VSAM, DB2, Seer HPS, Win NT, Unix, C, C++, Linux, TCP/IP, PERL, Internet/Intranet, SAP, PeopleSoft, XML, Testing. Junior level positions require bachelors plus 1 - 3 years of experience. Senior level positions require bachelors + 5 years experience or Master's + 2 years of experience. Relocation and/or travel possible. Top \$. Send resume to HR Dept at: 55 Princeton Hightstown Road, Suite 205B, Princeton Junction, NJ 08550 or email to: hrd@friendlyconsultants.com.

IT Careers

Director of Merger/Acquisition Integration - Western New York based manufacturing company seeking top quality candidate requires BS, MBA preferred. 10+ years exp with mergers & acquisition integration experience essential to include assessment, business case development, planning & plan execution to include: Networks, servers, software implementation (oracle 11i, SAP, etc.) Excellent understanding of manufacturing financial, engineering, and HR applications. Travel required. Salary D.O.E., Excellent client benefits. Respond to Personnel Resource, Inc. via email prinorth@perresource.com Or fax 716-633-6779.

SYSTEMS ANALYST

Analyzes user requirements, procedures and problems to automate processing or to improve existing computer systems. Extensive Travel involved. Bachelor's Degree in Computer Science, Engineering, or math-related and 10 months experience required in job offered or in analysis, design development and implementation of various I.T. application required. Included in the 10 month's job exp. Java 2.0, Servlets, JSP, RMI, EJB, OOAD with rational Rose, UML, XML, XSL, XLINK, Dreamweaver, Net Dynamics, Cold Fusion, WebLogic, WebSphere reqd. Apply by resume only to Murali Suddala, President, Capricorn Systems, Inc., 3569 Habersham-at-Northlake, Building K, Tucker, GA 30084.

BCC USA Inc. - Portland, Maine needs experienced Programmer Analysts having a Bachelors degree with minimum two years of progressive work experience in RUP/UML, JAVA, J2EE, EJB, JMS, Enterprise Messaging, IBM MQSeries and CORBA. Competitive salary and benefits. M-F, 40 hours/week. Please mail your resume to BCC USA Inc., HR Department, 650 Main Street, Suite 201, South Portland, ME 04106.

BCC USA Inc. - Portland, Maine needs experienced Programmer Analysts having a Bachelors degree with minimum two years of progressive work experience in Java, J2EE, Weblogic, ILog, JRules, WebLogic Process Integrator and IBM MQ Series. Competitive salary and benefits. M-F, 40 hours/week. Please mail your resume to BCC USA Inc., HR Department, 650 Main Street, Suite 201, South Portland, ME 04106.

Rock-Tenn Company, national paperboard and paperboard products manufacturer, is seeking qualified, degreed applicants with relevant experience as a software development team/project leader and familiarity with AS/400 and RPG to work in our Atlanta, Ga. office in the position of Chief Systems Analyst/Programmer. Interested applicants, e-mail resume and cover letter to jremling@rocktenn.com or mail to Jennifer Remling, Rock-Tenn Company, 504 Thrasher Street, Norcross, GA 30071 or fax to (678) 291-7575. EOE.

Ross Systems has an opening for a Technical Consultant. The position requires a bachelor degree or foreign degree equiv. in CS or related and a min. of 3 years DBA experience (including DB migration, architecture, and design) in multiple platforms and configurations. Ross Systems, Inc., Attention: Mgr, Employee Services, 2 Concourse Parkway, Suite 800, Atlanta, GA 30328. EOE. No Calls, Emails or Faxes.

PROGRAMMER ANALYSTS for Cincinnati, OH office. Design & Develop software applications using Oracle, VB, Developer 2000, Designer 2000, DB2, Java, XML, UML, Coolgen, Interwoven Bachelors or Equivalent req'd in Computers, Engineering, Math or any related field of study + 2 yrs of related exp. 40 hrs/wk. Must have legal authority to work permanently in the U.S. Contact HR Manager, Downtown Property Management, Inc., 8322 Arborcrest Dr, Cincinnati, OH 45236.

PROGRAMMER ANALYSTS for Chicago, IL and Fairfax, VA offices. Develop & maintain software applications using J2EE, MKS, Rational Rose, Interwoven, Coolgen, ClearCase, ClearQuest, Rapidigm, Tuxedo, Tango, Eclipse. Bachelors or Equivalent Degree req'd in Computers, Engineering or related field + 2 yrs of related exp. 40 hrs/wk. Must have legal authority to work permanently in the U.S. Send resume to HR Manager, Vigna Solutions, Inc. 70 West Madison, Suite #1400 Chicago, IL-60602.

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BackSpin Mark Gibbs



Arming the guards

Online security is on everyone's minds these days and for a good reason: This ain't your father's Internet anymore.

If I had to compare the Internet to a city, I would choose Los Angeles. This is because L.A., even to the most jaundiced palette, is weird.

L.A. is made up of lots of separate areas — clusters of industrial zones, clumps of “power” architecture buildings for Fortune 1000 companies, a few really wealthy neighborhoods, loads of strip malls and a seemingly endless sea of suburbia. And the whole mess goes on forever.

To beat the analogy to death, on the Internet each of these areas corresponds to the registrars/ISPs/infrastructure organizations, the big online businesses, the small online businesses and the millions of consumers. And just as L.A. swims through a miasma of air pollution, everyone on the 'Net is bathed in a fog of spam.

In L.A., just as on the 'Net, there are huge opportunities. But there are also huge risks and, unlike L.A., there's no real police force. So if there is no effective law enforcement and, indeed, hardly any laws that can be enforced, what do you do?

You could rely on the company that built your dwelling to deliver a safe, sturdy structure, but we

have learned the hard way that certain construction companies have neglected to put catches on the Windows or have installed faulty locks.

You can add all sorts of extra protections and, if you are really serious about security, you could post a security guard. But should the guard be armed?

In the real world it might seem like a good idea to give your rent-a-cop a big noisy gun, but in L.A. it is common wisdom that if you shoot someone you must ensure that a) it is the right someone and b) you shoot them dead.

Apparently in California should you wound and/or incapacitate someone in self-defense you might be sued even if he was on your property, in your bedroom in the middle of the night and wearing a stocking over his head. Go figure. In Texas I understand that such intruders are considered fair game and if you don't kill them the authorities will take them away and do it for you. But I digress ...

On the 'Net the guards are firewalls and intrusion-detection systems (IDS). But I just read about an IDS that effectively gives your guard some serious weaponry. The product, from Symbiot, is called iSIMs. The basic features of iSIMs are way cool and include what the company calls Graduated Response — a selection of standard countermeasures that include techniques such as traffic blocking, rate-limiting, honey pots, simulated responses and quarantining.

So far, so good.

But things get a little iffy in the features that provide what are essentially “black hat” techniques such as Reflection (sending attackers' packets back at them), Invasive Techniques (“obtaining access privileges on the attacker's system, and then pursuing a strategy of disabling, destroying or seizing control over the attacking assets”) and Counterstrikes (“sending exploits and other attacks which are specific to vulnerabilities on the attacker's system”). Symbiot explains, “This retaliation could be far in excess of the attack that the aggressor has underway.”

Symbiot also notes that it is “evaluating the legal aspects of these more aggressive countermeasures” and that it plans to provide these features only for “authorized deployments” — whatever that means.

I suspect that more than a few of you are muttering “let me at it!” While the John Wayne impulse is appealing, we have to be careful. For example, what happens when you make a mistake? You go to shoot the intruder and miss and the bullet goes through the window and wipes out a neighbor?

And what happens when you don't kill intruders and they turn around and sue you? In that case you'd better hope the Internet is more like Texas and less like L.A.

Geographic analogies to backspin@gibbs.com.



'Net Buzz News, insights, opinions and oddities

Grabbing Google's coattails

“Admittedly, you can do a lot with \$2.7 billion,” says Chris Cleveland, CEO at Dieselpoint, a tiny enterprise search company based in Chicago. The “you” he

speaks of is Google, his industry's 800-pound gorilla whose upcoming stock offering has single-handedly rekindled IPO fever in the tech sector.

Cleveland isn't fazed. In fact, he's ecstatic about the coattails effect that Google-mania has created for small search companies such as his own. Moreover, he doesn't think much of Google's current enterprise search offering — Google Search Appliance — or the company's prospects for parlaying its mind-share dominance of consumer search into enterprise success.

He may be whistling past the graveyard, but it's an unmistakably happy tune.

“[Google's IPO] has certainly raised the profile of search generally,” Cleveland says. “People who need better search on their Web sites are starting to make calls, and they're starting to buy things from us. The first quarter of this year we did better than we did during all of last year. And this quarter we will double our first quarter.”

He declined to put dollar amounts on all that doubling and redoubling because Dieselpoint is a private company. But he points to the likes of customers McGraw-Hill and Sony as validation that his all-Java search product is gaining steam with enterprise customers.

The company and others of its ilk also are being propositioned by players in the investment community who see Google's IPO as a leading wave.

“We weren't getting any [calls] even a year ago; nobody was interested,” Cleveland says. “It was the aftermath of the crash — still. But now, people are getting interested.”

He's had money types estimate the value of Dieselpoint at 10 times what he had envisioned. He's not looking to sell but acknowledges chatting up a few competitors in enterprise search about possible alliances. The market segment includes

Endeca, Autonomy, Verity, Fast Search & Transfer and Convera.

As for the gorilla's Google Search Appliance? Cleveland says it has a lot of bulking up to do.

“They are selling it based on their brand name — it's a great brand name — and on the pitch that it's easy to use, which it is generally,” Cleveland says. “But it just doesn't do the job. There are a lot of other players who are doing better in enterprise search, because it's a different problem, it's a different set of technical challenges that you have to solve.”

“One of the big differences is that Google gets great relevance ranking from the links, which generally don't exist on an intranet. The other big thing is that documents on an intranet, databases, XML, whatnot, have a lot of structure to them and you need to be able to exploit that structure, which is what we do. We categorize, we build menus, we make suggestions based on our knowledge of metadata. Google doesn't do any of that stuff,” he says.

But as the man noted, you can do a lot with \$2.7 billion.

Bush vs. Kerry at Meetup.com

Debate over the impact of the 'Net on national politics continues, with some seeing the Howard Dean phenomenon as evidence of its preeminence and others seeing Dean's failure as another bubble burst. Whatever the case, no politician takes the Web lightly anymore, which makes interesting a report from Meetup about the number of in-person forums for the presidential contenders that have been organized through its site.

Last Thursday alone, there were 43 local meetings organized nationwide in behalf of President Bush, and 617 for his Democratic challenger, Sen. John Kerry.

Make of those numbers what you will, but they cannot be seen as good news for Bush in a campaign that experts say will hinge largely on each camp's ability to mobilize its base.

Got a Google anecdote of your own? The address is buzz@nww.com.



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